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Dentists' Perceptions of their Professional Roles in the context of Referral Decisions in Primary Dental Care in England

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Dentists' Perceptions of their Professional Roles in the context of

Referral Decisions in Primary Dental Care in England

by

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Abstract

Zoë Elizabeth Allen

Dentists' Perceptions of their Professional Roles in the context of Referral Decisions in Primary Dental Care in England

Background
Within Primary Dental Care (PDC), there is variation in dentists' views about who should be treated in general dental practices and who should be referred to community dental services (CDSs), creating confusion about where patients can access dental care.

Aims
This research aimed to explore the meanings which general dental practitioners (GDPs) and community dentists in England ascribe to their roles. It focused on why they make, accept or decline patient referrals within PDC.

Methods
I conducted a configurative systematic review of literature about referrals within PDC in the UK. Data were synthesised using Critical Interpretive Synthesis. I interviewed ten GDPs and twelve community dentists working in England, covering topics informed by the systematic review. Transcripts were analysed using thematic analysis.

Findings
Synthesising the literature showed that referral decisions were influenced by non-clinical factors including policies, financial contracts and dentists' perceptions and values. Authors rarely reported directly from the perspective of primary care dentists.

The interview study findings showed that the business of dentistry defined GDPs' roles. Obscure rules and complex care systems underpinned community dentists' roles. Participants depicted vulnerable people within 'no man's land', situated between GDPs and community dentists. Vulnerable people included frail, older people, anxious and socially excluded adults, and children with high levels of disease. I identified three typologies of dentists. 'Entrepreneurs' felt no allegiance to the NHS and no obligation to treat vulnerable patients. 'Altruistic carers' cared for complex, deserving patients, rather than vulnerable patients. 'Pragmatic carers' accommodated some vulnerable patients but felt constrained from doing so by structural barriers.

Conclusions
This study adds to our understanding of why dentists make, accept or decline referrals within PDC in England. It suggests that failure to resolve structural barriers or to consider dentists' values will hinder attempts to reduce inequalities in access to PDC in England.

Thesis Summary

Chapter 1 provides a historical and policy context for primary dental care in England and describes the dental workforce and referral process. I introduce myself as a researcher and identify the research problem to be considered in this thesis.

Chapter 2 presents the methodology and findings of a configurative systematic review of the literature, which considered how referrals operate within primary dental care in the UK as a whole. This chapter also provides a rationale for further research relating to referrals within primary dental care.

Chapter 3 defines the research aim and objectives, summarises the theoretical considerations relating to sociological research and provides a rationale for the theoretical assumptions and research paradigm underpinning the primary research study.

Chapter 4 describes the methodology and specific methods used to collect and analyse qualitative interview data to explore dentists' perceptions of their professional roles in the context of referrals within primary dental care in England.

Chapter 5 provides a thematic analysis of the data collected in 22 interviews with dentists working in general dental practices and community dental services in England. It also summarises dentists' perceptions of their roles, and their colleagues' roles, within primary dental care.

Chapter 6 offers an interpretation of the findings, in which the data is considered in the context of three sociological theories. The social worlds of general dental practices and community dental services are mapped. The influence of the agency of dentists and the structure of primary dental care is considered and dominant roles within primary dental care are proposed. A critique of the nature and consequences of this dominance is offered.

Chapter 7 provides a discussion of the findings of the systematic review and the interview study, in relation to current policy and relevant sociological literature. Implications for policy, practice and dental education are considered. The strengths and weaknesses of this research study are discussed and recommendations are suggested for future research.

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List of Abbreviations

Abbreviation:	Phrase in full:
ARS	Abductive Research Strategy
BASCD	British Association for the Study of Community Dentistry
BDA	British Dental Association
CDS	Community Dental Service
CIC	Community Interest Company
CIS	Critical Interpretive Synthesis
COPDEND	UK Committee of Postgraduate Dental Deans and Directors
CQC	Care Quality Commission
CPD	Continuing Professional Development
DGA	Dental General Anaesthesia/Anaesthetic
DoH	Department of Health
DwSI	Dentist with a Special Interest
FGDP	Faculty of General Dental Practitioners (UK)
GA	General Anaesthesia/Anaesthetic
GDC	General Dental Council
GDP	General Dental Practitioner
GDS	General Dental Service
IV	Intravenous (sedation)
LA	Local Anaesthesia/Anaesthetic
LDC	Local Dental Committee
MCN	Managed Clinical Network
NHS	National Health Service
PCT	Primary Care Trust
PDC	Primary Dental Care
PDS	Personal Dental Services
RA	Relative Analgesia
RMC	Referral Management Centre
SCD	Special Care Dentistry
SHO	Senior House Officer
SW/AT	Social Worlds/Arenas Theory
UDA	Unit of Dental Activity
UK	United Kingdom
UKCAT	United Kingdom Clinical Aptitude Test

Glossary of Terms

Conscious sedation

A collective term for inhalation and intravenous sedation (see below), which are methods used within dentistry in order to relax dental patients whilst they remain conscious during dental procedures.

Conservation

The process of repairing damaged teeth or creating fixed replacements for missing teeth, which may include placing fillings, completing root canal treatment and producing crowns and bridges. Often abbreviated to 'cons'.

Dental caries

Damage to teeth (decay) caused by the combined effects of bacteria and sugar in the mouth, which can cause affected areas of the teeth to break down, forming cavities, potentially leading to pain and infection. Often abbreviated to 'caries'.

Dental corporate bodies

Companies which own and run multiple dental practices, within one region or across the UK. Such companies differ from the traditional arrangement of principal dentists owning individual dental practices, because they may include a combination of dental professionals and non-dental business people as company directors. Often abbreviated to 'corporates'.

Dental Foundation Training

Salaried training posts for recently qualified dentists, based in primary dental care settings such as general dental practices and community dental services, which provide an element of NHS dentistry. Completion of a course of foundation training is essential for dentists who wish to provide NHS dentistry in primary dental care settings during their careers. Previously known as Vocational Training.

Dentist with a Special Interest (DwSI)

A dentist who has an interest in a dental specialty but has not completed specialty training and is not registered with the General Dental Council as a specialist. This descriptive term is usually applied to a specific post held by a dentist.

Endodontics

The process (or mono-specialty) of root canal treatment, aimed at preserving damaged teeth in which the pulp tissue is no longer living and which may have become infected. Often abbreviated to 'endo'.

Inhalation sedation

A method of sedation to relax dental patients whilst they remain conscious, which is administered as a gas, breathed in with oxygen through a nasal mask, throughout a dental procedure. Also known as Relative Analgesia.

Intravenous sedation

A method of sedation to relax dental patients whilst they remain conscious, which is administered as a liquid medication, by injection through a vein in the hand or arm, before a dental procedure. Often abbreviated to 'IV sedation'.

Paediatric Dentistry

A dental specialty which focuses upon the management of oral and dental growth and development for children and adolescents, including congenital and acquired conditions of the mouth. It also includes the provision of dentistry for children who have developmental or acquired conditions which affect their general growth and physical and mental development.

Periodontics

The process (or mono-specialty) of treating the periodontal (gum) tissues for disease. Often abbreviated to 'perio'.

Prosthodontics

The process (or mono-specialty) of replacing missing teeth with removable replacements, usually in the form or partial or complete dentures.

Restorative Dentistry

A dental specialty which focuses upon the repair of damaged teeth and periodontal tissues (gums) and the replacement of missing teeth. It includes three mono-specialties: endodontics, prosthodontics and periodontics.

Special Care Dentistry

A dental specialty which focuses upon the provision of dentistry for adults who have additional needs which affect their ability to cope with dental visits and procedures. These additional needs may be related to, for example, developmental or acquired conditions resulting in impaired physical or mental wellbeing, reduced cognitive functioning, including complex medical conditions.

Chapter 1   Introduction

1.1   Introduction to thesis

This thesis explores dentists' perceptions of their professional roles in the context of referral decisions in primary dental care (PDC) in England. I systematically reviewed the existing literature regarding referrals within PDC in the United Kingdom (UK), using a configurative approach. This process identified that the meanings which dentists attached to their professional roles appeared to influence their decisions about patient referrals and, therefore, to affect how dentists utilised referral systems and services within PDC. Dentists' perceptions of their professional roles, in relation to referral decisions, have not been explored in depth previously. Therefore, this research project explored what it means to be a dentist working in PDC in England at present, with particular emphasis upon how those meanings relate to dentists' experiences of making and receiving referrals. This was achieved by interviewing dentists using a semi-structured approach and generating a thematic analysis of the data.

In this thesis, I draw upon sociological theory to map the constituent social worlds within PDC in England. I identify dentists' differing motivations and relate these to their agency, or influence, over the rules and resources which provide the structure of PDC. I propose an explanation for the limited agency of dentists who seek to support vulnerable patients, and consider the implications for the oral health and care of certain patient groups. In this thesis, I conclude that dominant perceptions of primary care dentists' professional roles, combined with the structure of PDC, collectively devalue supportive relational interaction

in dental care, thus restricting vulnerable patients' access to PDC and potential for improved oral health.

This introductory chapter provides the historical and policy context of PDC in England. I introduce the concept of referrals within PDC and outline the characteristics and career options of primary care dentists. I also present the initial research problem and provide the context for my interest in this subject. Chapter 2 details the methods and findings of the systematic review. Chapter 3 defines the research aim and considers the theoretical perspective for the primary research. Chapter 4 describes the methodology and methods which I used to research dentists' professional roles. Chapter 5 presents the findings, which I have interpreted in relation to sociological theory in Chapter 6. Further discussion of the significance of the findings, in the context of the systematic review, current policies and relevant sociological literature, is provided in Chapter 7, which concludes with recommendations for policy, practice, dental education and future research.

1.2 *Historical and policy context of Primary Dental Care in England*

I begin by introducing general dental practices as the main setting for the practice of dentistry in England, and the significance of the creation of the National Health Service (NHS) for the provision of dentistry. I outline the evolution of the Community Dental Service (CDS) from its origins as a School Dental Service, as an additional PDC setting. There are many similarities between PDC arrangements in England and the devolved nations of the UK (1-4). Consequently, literature relating to all four countries of the UK has been included in the systematic review presented in Chapter 2. However, specific

variations within the UK regarding the arrangements for NHS contracting with general dental practices and the organisation of the CDS are briefly mentioned for context in this chapter.

1.2.1 General dental practices and the provision of National Health Service dentistry in England

1.2.1.1 Legal restrictions on the practice of dentistry

Since the Dentists Act of 1921 (5), the practice of dentistry has been legally restricted to qualified, registered dentists (6, 7). From the late 1800s to the present day, the majority of dentistry in England has been provided by dentists, working in independent general dental practices, who are known as general dental practitioners (GDPs) (7, 8). The Dentists Act 1921 (5) required general dental practices to be run by qualified dentists, although this ruling was modified by the Dentists Act 1984 (Amendment) Order 2005 (9). This amendment stated that only a majority of company directors must be registered as dentists, dental therapists or hygienists, thus facilitating greater competition through the development of dental corporate bodies (10, 11).

1.2.1.2 The introduction of the National Health Service

General dental practices in England remained independently owned and operated when the NHS was initiated in 1948 (12). GDPs retained control of their independent dental practices, whilst being refunded for providing specific dental treatments to NHS patients through a 'fee-for-service' NHS payment system (12: p.11), known as the General Dental Service (GDS) contract (1). A backlog of untreated oral disease within the general population was gradually treated during the 1950s and 1960s, despite patient fees being introduced to manage demand from 1951 onwards (1, 12). GDPs continued to have the

option to offer private dentistry after the NHS GDS contract was created (6).

They were also permitted to provide patients with dental treatment under

general anaesthesia (GA) within the dental surgery, until the 1990s, during

which time this activity was discouraged for safety reasons, by the Poswillo

Report (13), and finally withdrawn by the Department of Health (DoH) in 2000

(14). GDPs continue to be permitted to act as gatekeepers by referring patients

to other dentists in primary, secondary and tertiary dental care services, if they

feel it is necessary and appropriate to do so (15).

1.2.1.3 Changes in the oral health of the population

The oral health status of the population in England improved and by the 1980s,

three groups of patients were evident (12). The older generation included many

people whose natural teeth had been removed and who required complete

dentures as a replacement (12). Middle-aged people had received multiple

fillings in the early days of NHS dentistry and needed replacement fillings and

crowns (12). Younger people were experiencing much less dental caries

(decay), due to the introduction of fluoride toothpaste, and consequently needed

less treatment (12).

1.2.1.4 Developments in primary dental care

The aim of PDC in England moved towards preventing disease in children, in

order to facilitate more people to reach adulthood with healthy teeth, rather than

having irreversibly damaged teeth which would require ongoing repairs. A

capitation system was introduced into the GDS contract in England in 1990, to

encourage GDPs to register more children and provide preventive care for them,

as well as encouraging continuity of care for patients of all ages (1, 12, 16).

However, the capitation system disincentivised dentists from treating dental

caries in the children who were affected, as they were not paid an explicit fee for this extra work; consequently, fees for children's treatment were reintroduced in the mid-1990s (16).

At the same time, dentists were providing increasing amounts of treatment for adults which still generated fee-for-service payments (12). In the early 1990s, the total NHS dentistry budget was restricted by the government and the cost of GDPs' increased productivity was managed by reducing fees for all NHS dental treatments (1, 12). As a consequence, many GDPs were frustrated and left the NHS system, converting to private practice during the mid-1990s (1, 12, 17). In the early 2000s, dentists could expect to earn approximately 50% more by working entirely privately, whilst simultaneously avoiding the perceived 'treadmill' of working solely under the GDS contract (18: p.13).

Reduced access to NHS dentistry, particularly in southern England, became a political issue and drew the attention of the media (19). In 1999 the British Prime Minister, Tony Blair, pledged that 'everyone in the country' would have access to an NHS dentist within two years (18, 19: p.457). This pledge was followed up by government-funded initiatives, notably an overseas recruitment drive for extra dentists (18), and the creation of Personal Dental Services (PDS) in England (12). PDS was a pilot scheme in which people could access urgent and routine NHS dentistry through general practices and other centres in a flexible manner (20). Access issues gradually subsided as the NHS invested in building, extending or refurbishing facilities to provide dedicated PDS access centres and encouraged new dental practices to take up GDS or PDS contracts (20). The PDS system also piloted alternatives to the fee-for-service contractual arrangement (20). The breakdown of contractual negotiations

between the DoH and the British Dental Association (BDA), representing GDPs, emphasised dentists' continued reluctance to accept the imposition of external influence upon their independent businesses (12).

1.2.1.5 Changes to contractual arrangements

Nevertheless, a new GDS contract was introduced in 2006 in England and Wales (21, 22), involving three bands of payments (and patient charges), but this incentivised GDPs to care for patients with minimal treatment needs, in preference to those who had extensive dental disease (21). An economic evaluation of the impact of the 2006 GDS contract showed that it was associated with a reduction in the use of NHS dentistry, and a concomitant increase in private dentistry uptake, by people who were previously regular users of NHS dentistry (23). This was not matched by the anticipated increase in provision of NHS dentistry for people whose access was previously poor (23). Furthermore, analysis of trends in dentists' clinical activity during the 1990s and 2000s suggested that dentists responded to the 2006 contractual change by providing patients with fewer advanced dental repairs, such as crowns, and undertaking more dental extractions (24). Whilst it was recognised that this may have represented a reduction in over-treatment, it was also suggested that dentists' were modifying their working patterns to maintain financial efficiency (24). This suggestion was consistent with dentists' own responses in a qualitative interview study, conducted after the 2006 GDS contract was implemented (21). The Steele Report (12) highlighted the need to change the whole system of NHS dentistry in England to promote effective delivery of preventive dental care as well as patient-centred, clinically-appropriate treatment. Several alternatives were piloted subsequently (25), however, at the

time of writing, the 2006 GDS contract is still in place in England, despite

extensive criticism from the dental profession (1, 12).

1.2.1.6 Contractual variations across the UK

In Wales, the 2006 UDA-based GDS contract has also been adopted (22). In

contrast, GDPs providing NHS dentistry in Scotland and Northern Ireland

continue to be remunerated through 'a combination of a capitation system…

and a fee for item of service' (3, 26: p.19). Limited access to NHS dentistry was

traditionally an issue in rural areas in Scotland, although it was becoming a

more generalised problem by the 2000s (26). Here, the strategy was to employ

salaried GDPs, who provided the same NHS dental services as other GDPs

(26). Salaried GDPs also provide NHS dentistry in areas of Northern Ireland

which have had limited provision in the past (3, 27).

1.2.1.7 Private and corporate dentistry in the UK

Data from 2012 estimated that £5.73 billion was spent in the UK on dental

treatment at that time, with NHS dentistry accounting for 58%, and private

dentistry for 42%, of the value of the market (28). Citing data provided by

LaingBuisson (29), the Office of Fair Trading also reported that '[t]he value of

the private dentistry sector almost doubled between the period of 1999-2000

and 2009-2010' (28: p.22). In addition, data from the same source indicated

that by 2010, dental corporates were contributing 10% of the total value of the

market (28, 29). Subsequent data demonstrated that this had increased to 22%

by 2014, by which time 6,950 dentists were reportedly working in the corporate

sector (30).

1.2.2   The evolution of Community Dental Services

The CDS in England and Scotland began as a School Dental Service in the early 1900s, after early dental epidemiological surveys drew attention to the poor condition of children's teeth (7, 31). This service expanded over time to provide some dental care for 'pre-school children, expectant and nursing mothers' (7: p.747). It was run by local government until 1974, when responsibility was transferred to the NHS (16). During the 1980s, the CDS was redirected towards providing care for vulnerable people, specifically adults and children with additional needs (32). This was confirmed in 1989 by the government document HC(89)2 (33), which required the CDS to screen schoolchildren for dental caries but compelled GDPs to provide most routine care for children (16, 33). The CDS was also considered to have a 'safety-net' function, providing routine care for people who had been unable to access dental care in general dental practices, particularly after GDPs reduced their NHS commitments in the early 1990s (8, 17). This role was often described in intentionally vague terms, designed to ensure inclusivity (34).

1.2.2.1   Variations within the CDS

In some areas of England, the CDS transferred to PDS contractual arrangements in the 2000s (35) and continued to provide access to urgent or routine dental care (34). In other areas, the CDS moved towards providing specialist dental care for children and adults who have additional needs, supported by an increasing number of specialists in the fields of Paediatric Dentistry and Special Care Dentistry (35, 36). In Scotland, the remit of the CDS continued to include safety-net and 'special needs' functions (26: p.11) alongside delivering preventive care for children as part of Scotland's national Childsmile programme (37). Following a review of salaried services in PDC in

Scotland in 2006 (26), the Scottish CDS and salaried GDP service merged to

form a Public Dental Service (38). In Wales, the CDS has continued to prioritise

community-based interventions to help prevent dental caries in young children,

through its Designed to Smile programme (2). The CDS in Northern Ireland

provides for patients who require Special Care Dentistry but it does not have a

dental access function (3, 27). Throughout all these developments within the

CDS across the UK, community dentists have continued to be remunerated

through a salary (26, 34, 39).

The CDS has been considered as part of primary dental care in some NHS

documents (34, 39), and separate from it in others (35). As the CDS in England

is currently commissioned by the NHS Commissioning Board, operating as NHS

England, alongside GDS contracts (35, 40), and it continues to provide routine

dental care directly to some patients, without the need for a referral from a GDP,

I have considered the CDS as part of primary dental care throughout this thesis.

1.3 The primary dental care workforce in England

Approximately 24,000 dentists were performing some NHS dentistry in England

in 2015-2016, a figure which had become relatively static after a gradual

increase over the preceding decade (41). This figure included GDPs and

community dentists with an NHS performer number (permitting them to

undertake NHS dentistry) and dentists with a PDS contract (41) but excluded

dentists who only provided private dentistry. The proportion of dentists working

with PDS contracts declined from 26% to 7% between 2006 and 2016, as these

contracts were time-limited (41). Although the number of male and female

dentists in England is currently similar, as recently as 2006-2007, less than 40%

of dentists working in England were female (41). In the late 1990s, 54% of

female GDPs worked as associates, whereas 76% of male GDPs were practice

principals (42).

Relatively little distinct information is available regarding the CDS workforce;

however, the number of dentists working in the CDS in England was reported to

be approximately 1,500 in 2010 (34). A survey conducted in the late 1990s

indicated that over 17% of female dentists worked in the CDS, whilst less than 5%

of male dentists did so, although male dentists were more likely to occupy

senior posts (42).

1.3.1   Career progression in primary dental care in the UK

After graduating, qualified dentists must successfully complete a programme of

Dental Foundation Training, known as Dental Vocational Training in Scotland,

prior to undertaking NHS dentistry in PDC in any part of the UK (43, 44). As

Foundation Dentists, newly qualified dentists work with patients in general

dental practices or CDSs, with clinical supervision from designated,

experienced dentists (43-45). After this period of training, dentists usually work

in general dental practices, as self-employed associates in independent

practices, and may eventually buy into a practice, becoming a principal dentist

(46). Alternatively, dentists may work in general dental practices owned by

dental corporate bodies (46). For the purposes of this thesis, the term GDP is

used to encompass all of these working arrangements, except where it is

relevant to refer to a particular group of GDPs more specifically. Although there

is no formal career structure for GDPs, they are increasingly taking up

opportunities to extend their professional and clinical skills through

postgraduate education and training (7).

Historically, formal career development within the CDS has also been limited;

however, some distinct stages of progression have been developed (39).

Community dentists usually work in generalist posts as Dental Officers initially,

and may progress to become Senior Dental Officers once they have developed

their skills and acquired postgraduate qualifications (39). Some dentists may

undertake specialty training in Paediatric or Special Care Dentistry, taking up

specialist posts in the CDS (39). In addition, some dentists take on additional

administrative responsibilities as a Clinical Director, providing leadership and

management for a specific CDS organisation (39). Paediatric Dentistry was

recognised as a specialty in the UK by the General Dental Council (GDC) in

1998, and involves providing dental care for children with specific impairments

or unusual dental conditions (48). Special Care Dentistry has been recognised

since 2008, as a specialty which focuses on improving the oral health and

dental care of adults who have specific impairments (49).

1.4 The concept of referrals within primary dental care in England

Whilst the majority of PDC in England is provided by GDPs who are, by

definition, generalists, GDPs are permitted to refer patients to other generalist

or specialist dentists, when they consider patients' care to be beyond their

'competence' (15: p.58). In particular, CDSs usually provide dental treatment

under conscious sedation or general anaesthesia and accept referrals from

GDPs for patients who require these additional services (1), which may be

delivered by generalist or specialist community dentists (39). In addition, some

specialists in restorative dentistry, and many orthodontists, work from specialist

practices and accept referrals from GDPs (50, 51). Furthermore, some general

dental practices and CDSs host specialist-led oral surgery services, which

provide surgical treatments for patients who might otherwise have to travel to

hospital (52, 53). These services may be provided by specialists or,

alternatively, by generalists known as Dentists with a Special Interest (DwSIs)

(54). Therefore, GDPs have several other factors to consider in relation to

referrals, in addition to making a judgement about their own competence to

provide a procedure.

The situation is further complicated by geographic variation, with a wider range

of specialist services being available in urban areas than in rural areas (55), and

local variation in the range of services provided by the CDS (34). In addition,

there is significant variation in the distribution and availability of GDPs providing

NHS dentistry across England (1). At present, policies are being developed

with a view to improving the flow of patient care between general dentists and

specialists from all dental specialties, through a system of Managed Clinical

Networks (MCNs) (8). MCNs have been proposed as a mechanism to assist

dentists to work together to share care when some additional specialist

knowledge or skills would benefit patients (8).

Thus, GDPs act as gatekeepers to many referral services within PDC in

England and their decisions about whether, and where, to refer a patient, could

lead to variations in the dental care which those patients are able to receive.

Similarly, the willingness of specialists and community dentists to accept those

referrals will also impact upon their availability to patients. The potential for

variation in the availability, organisation and utilisation of referral pathways

within PDC, combined with my own experience of working within PDC,

contributed to the rationale for my research, and the development of the

research problem to be investigated. These aspects are described in sections 1.5 to 1.7.

1.5   Researcher context and personal characteristics

I am in the middle of a career which began in clinical dentistry and transitioned into academic research and teaching. I choose not to place great importance upon defining myself by nationality or ethnicity, as I do not associate myself with a specific place of origin. However, I can be described as British and Caucasian, and I had a fairly traditional middle class upbringing. I am conscious of the opportunities that these circumstances may have afforded me, especially as a woman, with regard to my education and subsequent career.

My professional background as a dentist began with my dental education and training at a UK university, which incorporated an exchange placement in Finland. Early in my career, I obtained some experience of general dental practice and secondary care, through training posts. Between my final year at university and the end of my training posts, my awareness of social and health inequalities was raised, and I recognised that I had a particular interest in improving equality of oral health and access to dental care in the UK. Consequently, I progressed with a clinical career in community dentistry, providing NHS dental care for people experiencing socio-economic deprivation and people with additional needs, at a time when access to NHS dentistry was limited. I have always worked in England, both in the northeast and southwest, and through my clinical work, I have become aware of the hidden issue of rural deprivation as well as more visible urban deprivation issues.

In parallel with my clinical work, I became involved with dental epidemiology fieldwork and I undertook a Master's degree in Public Health. During my

studies, I began to appreciate the relevance and value of qualitative methodologies for exploring the social context of health, illness and care, and I moved away from the quantitative perspective which had been the focus of my clinical education. I started to recognise myself as an academic, taking a reflexive and critical stance towards dental health services and the dental profession.

1.6   Rationale for research

This research project results from my own experiences of making and receiving referrals within PDC, over 15 years in clinical dentistry. For ten years, I have been directly involved with receiving referrals, as part of a small team of senior dentists working in a CDS spanning a rural county in England. I was required to assess the suitability of referrals in terms of both adequacy of information provided and appropriateness of the referred patients for receiving treatment in the CDS, against a set of information quality, and patient eligibility, criteria. The criteria were re-defined over the years and, in some stages, I was involved in clarifying the criteria. Throughout this time, I also assessed and treated some of the patients who were referred to our service.

At times, I was aware of a sense of confusion in patients who had been referred for reasons they did not understand, whilst others appeared apprehensive or reluctant to be treated in general dental practice. There was also a sense of frustration amongst colleagues in my service who felt that patients were being referred who could have been treated in general dental practice and, occasionally, letters from GDPs expressed irritation when referrals were rejected by the CDS. These experiences led me to question what the referral

system was designed to achieve, and whether it was working for patients and dentists.

1.7   Development of the research problem and structure of the thesis

As a result of my clinical experiences and subsequent opportunities to reflect upon those experiences as an academic and dental educator, I set out to explore how referrals operated within PDC. My systematic review of the literature relating to this research problem (presented in Chapter 2 of this thesis) drew my attention to the relevance of dentists' perceptions of their professional roles to their referral decisions and patients' subsequent care experiences. It also demonstrated that primary research, involving dentists themselves, was lacking in this field.

My contribution to our knowledge of dentists' perceptions of their professional roles, in the context of referrals within PDC in England, forms the majority of this thesis. The sociological basis for my research is explained in Chapter 3 and my methodology and methods are outlined in Chapter 4. The findings are presented in Chapter 5, followed by my interpretation of the findings in Chapter 6. I conclude my thesis with a discussion of the findings in the context of current policies and relevant literature in Chapter 7, before summarising the implications of the findings and providing recommendations for policy, practice, education and future research.

1.8   Summary

This chapter has introduced general dental practices and the CDS as the main constituent settings of PDC in England, and GDPs and community dentists as members of its dental workforce. The historical origins, policy-led

developments and financial arrangements for general dental practices and the

CDS have been described. The concept of making and receiving referrals

within PDC has been introduced and some of the variations regarding the

nature and availability of referral services in England have been summarised.

The research problem has been described, in the context of my personal

experiences of working with referred patients in PDC. Chapter 2 will detail the

specific research question and methods for my systematic review of the existing

research literature relating to referrals within PDC in the UK as a whole.

Chapter 2   Systematic Review of the Literature

2.1   Introduction

Chapter 1 provided an introduction to the history, organisation and workforce of PDC in England. I also introduced the concept of referrals within PDC and my rationale for researching this topic. In this chapter, I will provide details of the methods of data collection and synthesis for a systematic review of the literature relating to referrals within PDC throughout the UK. In particular, an explanation of the methods of Thematic Synthesis and Critical Interpretive Synthesis, and the rationale for their use in relation to this review question, will be provided. The chapter continues with details of the outcome of the search process and an extensive synthesis of the data from the articles which were included in the review. The review findings informed the primary research aim, which is presented in Chapters 3 to 7.

2.2   Systematic review question

The preliminary aim of my research project was to explore the referral system which operated between general dental practices and the CDS in the UK, as it was presented by authors in published academic literature, in order to better understand the complexities of the system, as introduced in Chapter 1. The initial research phase involved systematically searching for, and synthesising, existing literature. The aim was to establish what information already existed which could contribute towards explaining how the referral system was currently operating within all aspects of PDC. Information relating to all four countries of the UK was included, as they share a common PDC model of providing NHS dentistry in general dental practices and CDSs (with some variations,

mentioned briefly in Chapter 1), alongside private dentistry provision. The

systematic review question was therefore defined as:

> 'How do referrals operate within the UK primary dental care setting?'

2.3   Methodology and methods

The review question was intentionally broad, in order to incorporate literature

which considered diverse aspects of the topic. This information was gathered

and synthesised to illustrate how the topic was depicted in the existing literature

and to inform future primary research, which was provisionally intended to

explore dentists' current experiences of making referral decisions within PDC.

This required a configurative approach to data collection and analysis, with a

view to identifying themes within the literature, which could be explored with

participants in subsequent primary qualitative research (56). The nature of

configurative systematic reviews and my choice of data collection and synthesis

methods are discussed in the following sections.

2.3.1   Configurative systematic reviews

A spectrum of research methods exists within the field of systematically

reviewing literature (56). Aggregative synthesis of quantitative data from

randomised controlled trials lies at one end of this spectrum, and can be used

deductively, to test hypotheses about the effectiveness of specific interventions

(56). At the other end of the spectrum, configurative syntheses adopt an

inductive, theory-generating approach to explore broader concepts in other

types of data (56). Configurative systematic reviewing lends itself to

researching socially-constructed phenomena, rather than interventions, by

identifying patterns and building meanings from data provided by authors of

existing literature, and their participants (56). However, Thomas *et al.* (57)

emphasise that the configurative approach includes numerous methods which can be employed to answer deductive or inductive review questions and that the method should be selected to match the review question and intended product of the review. I intended to explore people's documented perceptions and opinions, as well as existing research, relating to the phenomenon of referrals within PDC. Therefore, I elected to adopt a configurative approach to the systematic review and to use data synthesis methods which were consistent with creating an inductive product.

2.3.2   Data collection and synthesis methods

Many of the methods which have been developed for configurative syntheses have their methodological origins in primary qualitative research (57, 58). Barnett-Page and Thomas (58) provide a comprehensive summary of nine of these methods, including their similarities and differences. This summary compares the theoretical perspectives underpinning the methods, the nature of the data which they are designed to synthesise, approaches to quality assessment and products of the synthesis (58). Some of these methods, such as 'Framework Synthesis' (58: p.5), produce relatively deductive outcomes, as they are based upon applying a framework, which has been pre-determined by the researcher, to the data (57, 58). The principles behind the use of a framework in analysis are summarised in section 4.7.2.

In contrast, many other methods are more inductive in their approach, enabling the researcher to generate synthetic products which are 'derived from the studies themselves', to a greater extent (57: p.183). These methods were more consistent with my inductive approach to investigating the review question. It is beyond the scope of this thesis to describe all of the available methods,

however, I will summarise the two methods most relevant to my review question:

Thematic Synthesis and Critical Interpretive Synthesis (CIS). Both methods are

founded upon elements of meta-ethnography and grounded theory, with

Thematic Synthesis adopting a realist theoretical position and CIS an idealist

stance (58). The key features of these methods are summarised and compared

in Table 1.

Table 1: Comparison of the features of Thematic Synthesis and Critical Interpretive Synthesis

Feature	Thematic Synthesis	Critical Interpretive Synthesis
Review question	Definitive	Iterative
Search process	Single	Iterative
Sampling	All sources analysed	Purposive & theoretical sampling of source material
Nature of data	Qualitative data only	Diverse data sources
Extent of data	Findings section	Whole document
Appraisal	Quality	Relevance
Coding	Coding text line-by-line	Informal data extraction
Products	Descriptive themes Analytical themes	First & second order constructs Synthetic constructs & synthesising argument

2.3.2.1 Thematic Synthesis

Thematic Synthesis was devised by Thomas and Harden (59) as a transparent

method of synthesising themes across multiple sources of qualitative data (58,

59). This method leads to a synthetic product in which concepts from the

original data are recognisable (59), and which is intended to be directly useful to

'policymakers and practitioners' (58). More recently, Gough and Thomas (56)

have claimed that Thematic Synthesis can also be used to analyse data which

is not derived from qualitative research, although the inference remains that

data being synthesised in any individual review would be derived from sources

similar to each other. Another recent development suggested by Thomas *et al.*

(57) is the potential to use entire documents as data, rather than just the findings of studies.

Thomas and Harden offer a worked example of Thematic Synthesis, in which they apply the method to review 'barriers to, and facilitators of, healthy eating amongst children' (59: p.2), drawing specifically upon qualitative research exploring children's views, as sources of data. The process begins with a definitive review question and a systematic search process, with inclusion of all identified literature which meet the search criteria (59). Thomas and Harden (59) explain that identifying all such articles, particularly for qualitative studies, presents a challenge which is yet to be entirely overcome. However, they emphasise that the aim of a configurative search is to identify literature covering the breadth of concepts relating to the review question, known as '"conceptual saturation"' (59: p.3). Therefore, they argue, it is not essential to source every article relating to each concept, as it might be in an aggregative review process (59).

The search criteria necessarily limit the scope of the review to qualitative data sources, and only the research findings are considered as data in the review (59). Study quality is appraised and data is coded on a 'line-by-line' basis (59: p.1). Thematic Synthesis follows a similar process to thematic analysis for primary qualitative data analysis, in that it involves identifying 'descriptive themes' within individual source documents and then comparing data across all sources to generate 'analytical themes' (59: both p.1). Thomas and Harden (59) highlight the flexibility of the concept of thematic analysis, in terms of the transferability of the principles from primary to secondary research. The nature

of thematic analysis as a 'foundational method for qualitative analysis' (60: p.78), is discussed further in section 4.7.1.

2.3.2.2 Critical Interpretive Synthesis

CIS was developed by Dixon-Woods *et al.* (61) in order to synthesise methodologically diverse data from a large number of sources. It creates a synthetic product which interprets beyond the original data, critiquing source documents to generate theory about the phenomenon under review (61). It is recognised that such products may require further interpretation before they are directly useful to policy makers or practitioners (58).

CIS differs from most other methods in that it involves iterative development of the research question and the search process, as well as the synthesis stages (58). Indeed, Dixon-Woods *et al.* consider the review question 'as a compass rather than an anchor' throughout the review (61: p.3). The purpose of this variation is to enable researchers to critique the question and to maintain the breadth of the review, rather than being constrained by a precise question when considering a novel phenomenon which is yet to be clearly defined (61). Dixon-Woods *et al.* (61) use theoretical sampling to select diverse data sources from the inevitably large set of sources meeting their inclusion criteria, rather than attempting to source and incorporate every document which may meet the criteria. Theoretical sampling is described in section 4.5.1. CIS is specifically intended to synthesise methodologically diverse data, on the basis that knowledge about many phenomena may not be confined to data produced using specific research methods (61).

By considering each entire document as a data source, rather than just the findings of research studies, CIS utilises data from research participants but

also enables reviewers to critique the interpretations offered by authors of documents. CIS adapts 'Schutz's notions of "orders" of constructs', in which first order constructs represent lay people's (or research participants') perspectives and second order constructs are the interpretations of 'authors in primary study reports', in the language of the social sciences (61: both p.5). Schütz (62) proposed this distinction in the context of studying the social sciences and I elaborate upon his contribution in section 3.4.2.1. In CIS, third order, or '*synthetic constructs*' (61: p.5, authors' emphasis), are generated by the reviewer, building new ideas about a phenomenon by connecting aspects of first and second order constructs from individual data sources, across the entire body of literature under review. The final product of CIS is a '*synthesising argument'*, which 'may explicitly link not only synthetic constructs, but also second order constructs already reported in the literature' (61: p.6, authors' emphasis). A synthesising argument is 'a coherent theoretical framework comprising a network of constructs and the relationships between them' (61: p.5).

Dixon-Woods *et al.* (61) acknowledge that, rather like primary qualitative data analysis, CIS generates interpretative products which may be less transparent than those of other, more standardised approaches to systematic reviewing. However, Dixon-Woods *et al.* point out that a '"meaningful" question' may require a 'pragmatic' review method to generate useful information through synthesis (61: both p.11). The use of CIS is demonstrated by their review of 'access to healthcare by vulnerable groups in the UK' (61: p.1), in which they present 'candidacy' (61: p.7) as a synthetic construct, producing a synthesising argument to explain how vulnerable people have to negotiate access with healthcare professionals. Flemming (63) has also used CIS to generate

synthesising arguments regarding the use of opioids in the management of cancer pain. She used this method to combine guideline documents with qualitative research, in order to develop 'an understanding of the context and social meaning surrounding the use of morphine to treat cancer pain' (63: p.214). Thus, it can be seen that CIS can facilitate the study of complex healthcare-related phenomena which have social components.

2.3.2.3 Rationale for selection of review methods

Conventional systematic review methods are founded upon strictly defined search strategies, inclusion criteria and data aggregation processes (56). In contrast, configurative review methods may seem less structured; however, they facilitate the exploration of broad and potentially complex, socially-constructed phenomena, enabling theory to be generated about novel research topics (58). Based upon my idealist and social constructionist theoretical assumptions, which are detailed in Chapter 3, I consider the concept of patient referrals within PDC to be socially constructed and subject to multifactorial influences. Thus, a configurative, systematic approach to reviewing the literature is more appropriate than an aggregative approach, for this review question.

My review question could be relatively clearly defined and related specifically to published academic literature. Initial exploration of the research topic suggested that it was not particularly active at the time, in terms of recent academic publications or emergent sub-topics. Therefore, it was reasonable to assume that a single systematic search process involving broad search terms, applied in several databases of published literature and commonly-used catalogues of grey literature, would yield the majority of the available

documents on the research topic. Consequently, I applied the more conventional systematic search process used in Thematic Synthesis to acquire relevant documents, following the general principles for data collection outlined by Brunton *et al.* (64) for configurative systematic searches. In particular, whilst developing the search strategy, I undertook to familiarise myself with potentially relevant search terms and Boolean operators, and to identify suitable databases and grey literature sources for locating information about referrals within PDC.

However, from my prior knowledge of the research topic, I was aware that referrals within PDC were infrequently studied through qualitative research, or interventional research with quantitative outcomes, but more often observed, audited or commented upon in the academic literature. Therefore, I anticipated that I would need to include methodologically diverse literature in the review, and to consider the entire documents as data, as authors were likely to comment upon referral pathways and processes in other parts of their publications, rather than just in the findings.

There is inevitably some risk of reporting bias in authors' presentation and discussion of their findings. Reporting bias involves the selective reporting of research results in such a way that those which are reported differ, systematically, from those which are not reported (65). This is perhaps more of a concern in aggregative reviews, in which incomplete or missing data could result in misleading calculations (66). However, it may also affect configurative reviews, although its impact may be less critical, because the product of such a review is a set of broad themes, rather than precise figures. For example, authors may have been selective in their use of quotations from patient satisfaction surveys or interview participants, or may have interpreted

evaluations of dental services in which they provided clinical care in a particularly positive manner. In addition, bias towards the publication of significant results may have resulted in the non-publication of research, evaluation, audit manuscripts and even letters to editors which were perceived to have had less remarkable outcomes than other manuscripts submitted for publication. Consequently, one of the purposes of this review was to identify whether any authorial, or participant, voices were underrepresented in the literature, with a view to rectifying that situation through my subsequent primary research.

Furthermore, the main aim of this review was to establish the breadth of perceptions and opinions about referrals within PDC, whilst also critiquing authors' subjective positions, rather than to objectively identify the most robust referral procedures. This meant that the relevance of documents was likely to take precedence over appraisal of the quality of any research being reported, and that an informal approach to data extraction might be more appropriate than the use of data extraction forms, or line-by-line coding. Thus, neither Thematic Synthesis, nor conventional synthesis methods would be suitable for data synthesis. Accordingly, I adopted the more interpretive approach of CIS for the integration and synthesis of diverse data, in order to critique authors' accounts, generate new knowledge and go beyond the existing data, to problematise the phenomenon of referrals within PDC. The overall sequence of my systematic review process is presented in Figure 1, and details of the process are described below.

Thematic Synthesis
Definitive review question
Single systematic search
All sources analysed

Critical Interpretive Synthesis
Diverse data sources
Whole document as data
Relevance appraisal
Informal data extraction
First & second order constructs
Synthetic constructs & synthesising argument
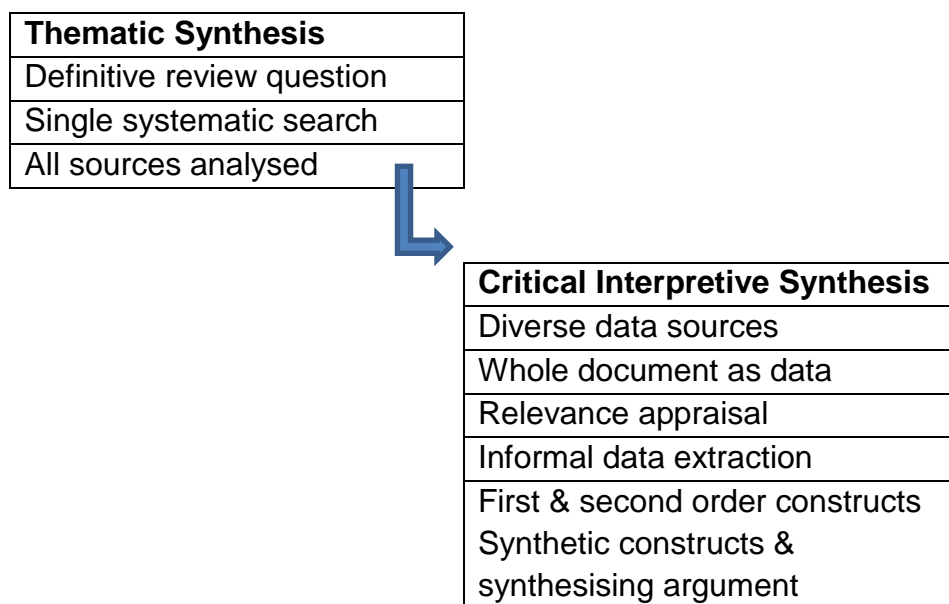
Figure 1: Systematic review process

2.3.3   Data collection process

2.3.3.1 Information sources

The database search was completed on the 11th of November, 2013, in

MEDLINE and CINAHL (using the EBSCO interface) and in Embase (using the

OVID interface). In addition, a search of grey literature was undertaken in the

Cochrane Database of Systematic Reviews, OpenGrey and EThOS (the British

Library e-theses online service); the grey literature search was most recently

updated on the 18th of August, 2015. The search strategies for the database

and grey literature searches are described in section 2.3.3.2, below. As the

systematic review was undertaken specifically to inform development of the

primary research aim and objectives, none of the searches were repeated after

the interview study commenced.

2.3.3.2 Search strategy

In order to achieve a sensitive search, I used broad search terms to identify as many relevant articles as possible. These terms related to the concepts of referral and dentistry, and were peer-reviewed prior to the search process (MN). I also used search terms to exclude literature relating specifically to countries outside the UK, rather than using built-in geography filter options, as the built-in filters were not consistent across all three databases. The search terms for the MEDLINE and CINAHL searches are listed in Appendix 1 and those for the Embase search are listed in Appendix 2. The search terms used in the grey literature searches are listed in Appendix 3. In the Cochrane Library Database of Systematic Reviews, literature could not be searched using specific terms, so relevant documents were identified by checking all document titles for selected topics in the database, which are listed in Appendix 3, against the screening criteria specified in Appendix 4 and described below. In EThOS, the search function is limited, so a search for terms relating to dentistry was combined with manual searching for the concept of referral. The search strategies were checked by an information specialist (LB) after they were devised.

2.3.3.3 Study selection

As stated in Chapter 1, definitions of the UK PDC setting are inconsistent with regard to whether the CDS is included. As the current categorisation of dental services clearly excludes the CDS from secondary care (35), and the CDS has always provided the public with direct access to some of its dental services, without the need for a referral from another dentist (34), I have defined PDC to include the CDS. I have also considered dental practices (and other organisations) which have adopted PDS contractual agreements, to constitute PDC, as commissioning for these services, including some services provided by

specialists and DwSIs, was merged with GDS contract commissioning in 2006 (35).

In this review, records were included if they related to referrals which originated from, and were also received by, dentists in primary care settings such as general or specialist dental practices and the CDS, in order to include referrals to and from dentists working under GDS, PDS or CDS contracts. Records relating to referrals into secondary or tertiary dental care services were excluded. However, records relating to referrals to the CDS, where certain aspects of treatment were delivered on hospital sites to meet GA legislation (as discussed in Chapter 1), were included in this review, if it could be established that the dental care was being provided by a PDC organisation. Dental care was defined as assessment, diagnosis, prevention or treatment for oral disease, including methods for managing dental anxiety. Records were only included if published in English and referral was a significant theme within the article. A detailed description of the screening criteria is provided in Appendix 4. The inclusion and exclusion criteria were developed and refined by discussion with supervisors (DM, MN and ES).

Records relating to England and the UK's three devolved nations of Scotland, Wales and Northern Ireland were included, because all four countries use the NHS model of dental care provision, alongside private dentistry. No restriction was placed on the research methods used. Non-research articles, such as opinion pieces and letters, were included in order to identify the perceived concerns, successes and priorities of authors, or practising dentists, who had direct or observational involvement with referrals within PDC. Records simply reporting referral instructions, clinical guidelines or policies were excluded, as

they did not describe actual referral systems in action. I reviewed record titles against the inclusion and exclusion criteria, abstracts were then reviewed by two reviewers (myself and either MN or DM), and I reviewed all remaining full text articles.

2.3.3.4 Quality appraisal and data extraction

In line with the principles of CIS, articles were included on the basis of relevance, including people's perceptions, rather than quality (61). Consequently, I did not undertake quality appraisal, nor did I use data extraction forms. I considered the entire content of each article as a data source and extracted data from any relevant section. All included articles were imported in full into NVivo 10 for data storage. I made handwritten notes to record key points from articles and emerging concepts and ideas generated whilst reading and comparing the articles. I also coded relevant sections of text in each article within NVivo10, in order to create a list of potential concepts, to which I could refer during the synthesis process. The concepts and ideas were discussed and revised at a series of meetings with supervisors (DM, MN and ES) in order to minimise potential for over-interpretation.

2.3.4 Data synthesis process

The included articles described referrals relating to four combinations of referral source setting and destination setting; referrals from GDPs to the CDS, referrals from the CDS to GDPs, referrals from GDPs to specialists within PDC, and referrals within the CDS. I described these routes as referral pathways and grouped the articles according to the referral pathway(s) which they portrayed. Constructs from all articles within a referral pathway were collated, in order to explore similarities and differences in the referral reasons and processes, both

within and across pathways. Using the principles of CIS, I identified first order

constructs, usually presented as data relating directly to research participants in

the results sections of the studies. I considered direct quotations or

paraphrased summaries of participants' own words, derived from semi-

structured interviews or open comments sections of questionnaires, to

represent participants' voices, as dentists or patients. Information clarifying the

qualitative nature, or otherwise, of interviews and questionnaires was sourced

from the methods sections and, where additional details were provided, in the

results sections of included articles. I also considered published letters from

individual dentists to journal editors to represent participants' voices.

I derived second order constructs from the interpretations of the authors

throughout each entire article. I considered all academic articles to contain an

authorial voice, including research, evaluation and opinion articles, as these

represented people's contributions as official representatives of an organisation

or a profession. Finally, as a reviewer drawing together and interpreting from

the many first and second order constructs within each pathway, I generated

synthetic constructs, that is, overarching themes identified from the data as a

whole. Thus, synthetic constructs do not provide a descriptive narrative

synthesis of the original data sources but rather a broader, more interpretive

overview. However, as each synthetic construct relates to numerous first and

second order constructs from multiple articles, some aspects can be referenced

to data sources or illustrated by excerpts of data. For each pathway, I produced

extensive tables during the synthesis process, documenting how my synthetic

constructs were informed by first and second order constructs identified in the

literature, and summarised into a 'synthesizing argument' (61: p.5).

2.4   Search results

2.4.1   Database searches

The database searches generated 4,198 records in MEDLINE, 8,352 records in CINAHL and 3,559 records in Embase, creating a total of 16,109 records, which were exported into Endnote X5. Appendix 5 presents a flow diagram of the database search process (67). De-duplication resulted in 3,562 records being excluded, leaving 12,547 unique records. After checking the article title and relevance of the source journal, 512 articles remained, of which 196 articles remained after reviewing the abstracts. Having read the full text, 72 articles were retained and included in the systematic review. The reasons for exclusion of articles at the full text stage are provided in Appendix 5. Reference lists of included articles were not searched for additional articles, on the basis that Thematic Synthesis and CIS both aim to achieve "'conceptual saturation'" (59: p.3) rather than sourcing every article which meets the inclusion criteria.

2.4.2   Grey literature searches

Within the grey literature sources, 201 records were identified through the Cochrane Database of Systematic Reviews, 390 records were identified through EThOS and 11 records were identified through OpenGrey, producing a total of 602 records. Of those, 590 records were excluded on reading the title, and the remaining 12 were excluded after reviewing the abstracts. Consequently, no additional articles were included in the systematic review and again, reference lists were not checked for additional articles. The results of the grey literature search process are presented as a flow diagram in Appendix 6 (67).

2.4.3 Characteristics of included articles

Three main referral pathways were identified in the literature:

- Referrals from GDPs to the CDS (26 articles);

- Referrals from the CDS to GDPs (10 articles);

- Referrals from GDPs to specialists based in PDC (38 articles).

One additional referral pathway, involving referrals made within or between CDS organisations, was identified in three of the articles (68-70). Two articles were relevant to two of the main pathways and contributed data to both pathways (21, 71). Many articles were descriptions of novel services, or audits evaluating existing services, whilst some were interview- or questionnaire-based articles, opinion articles or letters. Sixty of the 72 articles were published in the 1990s and 2000s. Forty-six articles related specifically to referrals in England, whereas 15 related to one of the devolved nations, one of which related to England and Wales (72). Twelve articles did not define a specific location within the UK. Appendix 7 provides a list of the included articles and their characteristics are summarised in Appendix 8.

In 42 articles, at least one author was listed as being a practising dentist working in a clinical role in a PDC setting located in the UK. Some of these dentists were writing about referrals which they had received, and treatment which they had provided, in their own work setting. The extent of this arrangement in the included articles is documented in Appendix 8. Whilst these authors may not have been impartial in their representation of the issues described in their articles, it was their perceptions of the issues, processes and people involved which I sought to examine in the review. Community dentists had mainly contributed to articles about referrals from GDPs to the CDS or from

the CDS to GDPs. Specialists and, to a lesser extent, GDPs, had mainly contributed to articles about referrals from GDPs to specialists.

Two articles which were included in the review did not contribute to any of the synthetic constructs. In one article (73) about an IV sedation service, errors in the results section meant that statements made in the remaining parts of the article were not relevant to the review question. One letter (74) reported a very specific situation which was not described in any of the other 37 articles in this pathway and therefore secondary constructs from this article, when considered alongside secondary constructs from other article, did not contribute to the synthetic constructs which were generated from the body of literature as a whole.

2.5   Synthesis of findings

The synthesising argument for each pathway is presented below. The synthetic constructs for each referral pathway are listed in Appendices 9 to 12 and elaborated in sections 2.5.1 to 2.5.4, with example quotations from the literature. Appendices 13 to 16 provide a more detailed example of the synthesis of one synthetic construct from data in the source literature, for each of the four referral pathways.

2.5.1   The referral pathway from GDPs to community dentists

2.5.1.1 Synthesising argument

Referrals from GDPs to community dentists represented a handover of responsibility for the care of patients, for patient management reasons. Children, anxious adults and frail, older people were referred on this pathway. The professional obligation to consider a range of alternative patient management options created uncertainty in clinical decision making, leading to

role conflict and confusion between professional groups. Additional difficulties were created by ambiguity over the boundaries between the roles of community dentists and GDPs in delivering care for some potentially vulnerable patients who need support to cope with treatment, coupled with conflicts resulting from financial disincentives in the GDS contract and capacity pressures in the CDS.

2.5.1.2 Synthetic constructs

Thirteen synthetic constructs were identified in the articles relating to referrals from GDPs to the CDS (Appendix 9). This pathway included articles from all four countries of the UK. Exploration of patients' experiences of this referral pathway was very limited within the sourced literature. Appendix 13 demonstrates the development of the synthetic constructs relating to role ambiguity regarding potentially vulnerable patients.

2.5.1.2.1 Professional roles in relation to potentially vulnerable patients

The literature documenting referrals from GDPs to the CDS in all four countries related to potentially vulnerable people, who could be unable or unwilling to seek care for themselves, including children (69, 75-92), anxious adults (93, 94) and frail, older people (68, 95, 96). The articles focused predominantly upon the referral of children with extensive or symptomatic disease, usually dental caries. GDPs appeared to refer children when they perceived children's treatment to be close to, or beyond, the limit of the child's ability to cope (78, 79, 84, 88), or of their own ability to deliver treatment (82, 91). Many non-clinical factors appeared to influence whether GDPs felt able to deliver definitive dental care for some of their child patients (21, 78, 79). If GDPs perceived that they might be unable to deliver the care necessary to resolve children's situations

without causing distress, they requested assistance from other dental services

through the referral process (82, 91).

> "'…they came because their child, about five, was suffering from extreme
> pain. He was a little bit nervous…and I didn't feel I wanted to put him
> through local anaesthesia procedures. So I made a referral…'" (91: p.95)

Frail, older people appeared to be reliant upon carers to voice their oral health

needs (69, 95). GDPs' perceptions of their responsibilities to elderly people,

particularly those needing care at home, appeared to be weaker than their

response to children. It appeared that very few GDPs actively sought to offer or

provide routine treatment for frail, older people (68, 96). Although they

appeared to believe that community dentists should provide all dental care for

frail, older people, it seemed that GDPs were becoming less likely to seek out,

and subsequently refer, frail, older people who might need dental care (68, 95,

96).

> '…despite the high level of claimed domiciliary care in the Highlands and
> the willingness to travel long distances to see patients, dentists on
> average only visited one elderly patient per month with few visiting
> patients in long-term care...' (68: p.92)

Whilst GDPs did not appear to routinely assess the nature or severity of

patient's anxiety, and some felt unprepared to manage it themselves, GDPs did

make referrals for anxious patients (93, 94). These referrals were usually made

primarily for treatment under intravenous (IV) sedation (93, 94), apparently

overlooking options to resolve the underlying anxiety disorder. However, the

literature suggested that GDPs were unable to access some alternatives for

dentally anxious adults, which were only available upon referral from a doctor or

a community dentist (94).

2.5.1.2.2   Referral as handover of responsibility for patient management reasons

In articles from England, Scotland and Northern Ireland, GDPs' reasons for referring patients to community dentists were predominantly expressed in terms of patient management, rather than technically difficult care. Young children (78, 79, 84, 88), anxious adults (93, 94) and frail, older people (95, 96) were all presented in the literature as being referred by GDPs because they needed extra support to cope with dental care. With regard to referrals for children, reasons either related to a specific condition or type of treatment (78, 79, 84, 88), such as multiple extractions, or a characteristic of the patient (78, 79, 84, 88), such as their young age or anxiety. These reasons were presented as implying that the situation was beyond the role of a GDP and could not be managed for children in general dental practices. Referral requests for children could also be made, and accepted, without the GDP specifying any reason (78, 86, 88). This suggested that a child's need for any dental treatment could be perceived as a self-evident and inherent justification for a referral to the CDS (78, 79), although other authors disagreed with this perception (80, 81, 90).

> 'The referral letters often only stated "Please see and treat", hence offering no particular reason for transferring the patient to the CDS.' (78: p.587)

GDPs appeared to use their prior experience to anticipate children's coping skills and to make referrals based upon predicted management problems (79, 82, 91). However, some authors suggested that these predictions could be used to mask underlying financial reasons for handing over responsibility for children's dental care to the CDS (21, 78).

Similarly, reasons for referring anxious adults and frail, older people were phrased in terms of perceived barriers to delivering their care in practice (94-96).

Some barriers related to a lack of management skills for anxious and frail people, or negativity or indifference towards providing domiciliary care (91, 96). Others, such as lack of time and equipment, appeared to act as a proxy for perceived financial disincentives to take on patients who might need additional support to cope with dental treatment (96).

> 'The most common reasons cited for not providing domiciliary care were lack of time…the perception that the patients are too difficult to manage…lack of appropriate equipment...and inconvenience associated with providing the service.' (96: p.108)

2.5.1.2.3 Complex referral pathways

The complexity of referral pathways for children, anxious adults and frail, older people was widely documented in articles from all four countries (68, 69, 77, 91, 94, 96). The availability of information and feedback from providers for GDPs, enabling them to navigate these pathways, was sometimes perceived to be lacking (77, 94). With regard to referrals for elderly people, some authors presented a relatively straightforward system in which GDPs referred patients with severe mental or physical impairments, or a need for domiciliary care, to the CDS (68, 95). Some authors suggested that the needs of most elderly people in these groups could be met by GDPs and there was little need for specialist support (95). However, a more complex situation was also described, whereby patients with impairments of different complexity, who were referred to the CDS, might be referred on from generalist community dentists to specialists within the same CDS (68). An implication of this arrangement was that, in some areas, suitable specialists may have worked within primary care, but GDPs may not have had direct access to them (68). Conversely, GDPs in some areas appeared to refer older people to specialists in secondary care, in preference to the CDS (96).

> '…a minority of GDPs reported referring patients to the specialist hospital for temporary fillings and scaling/polishing. These are basic treatments that could be provided much more cost-effectively by the CDS.' (96: p.111)

A multiplicity of referral services for anxious adults appeared to co-exist in an urban setting (94). Some of the referral services offered only one specific type of care (93), such as cognitive behaviour therapy or GA, although there was some overlap in the options provided by the CDS and some dental hospitals, which included sedation and extra time (94). Whilst these referral services for anxious adults appeared to be more straightforward for GDPs to navigate, they could be complicated by the withdrawal of GDPs' authorisation to refer patients to certain services (94).

> 'No referral route into psychotherapy services existed for GDPs… only patients engaged with the salaried dental service [CDS] were able to access psychological support for their dental anxiety.' (94: p.201)

In many geographic areas, the literature suggested that only one referral service was available for children in the post-Poswillo era (13), which had limited dental care under GA to hospital settings (14, 97), as described in section 1.2.1. However, these services appeared to operate in different ways in different areas. In some areas, GDPs would refer to a dedicated GA service for dental extractions, usually delivered by a CDS but operating separately from the rest of that CDS (69, 77, 79, 85, 87, 89). Other referral services were integrated into the CDS, through which a range of treatment modalities might be accessed, including local anaesthetic (LA), general anaesthetic (GA) and sometimes, but not always, inhalation sedation (76, 80, 84, 90). The use of inhalation sedation, even where facilities existed, appeared to be contingent upon community dentists' preferences to offer it (84, 87, 90). The extent to which these

alternatives were evident, and overtly accessible, to referring GDPs, appeared

to be variable (76, 80, 84, 87, 88).

> 'As all the trusts provided inhalation sedation services, treatment with
> inhalation sedation should ideally have been attempted…but this was
> offered in only 2 cases (1%).' (84: p.563)

In some areas with a large population, it appeared that children could be

referred to the CDS or a specialist dental or children's hospital, for the same, or

similar, dental care (69). Consequently, both GDPs and community dentists

were referring children to some of these duplicated services (69). GDPs

sometimes appeared to refer children with more extensive disease directly to a

dental hospital GA service, whilst community dentists in the same area usually

provided treatment for their own child patients within their own service, at

another hospital site, unless they were medically compromised (69).

> '…a plurality of referral paths between GDPs, the CDS and hospital
> services was in operation, without clear direction.' (69: p.50)

Some form of pre-anaesthetic assessment visit was usually described in the

articles relating to children's dental care (76, 77, 80, 87, 90).   These visits

appeared to have evolved from GDC guidelines designed to improve the safe

and appropriate use of GA for dental care (80, 90). However, the timing, depth

and influence of the assessment visit upon subsequent care could also vary

between services in different areas (87). This may not have been explicit to

referring GDPs. In many articles, the assessment was portrayed as a barrier, at

which the suitability of the patient and the treatment plan would be queried and

the patient would only proceed to receive care if a series of pre-requisites were

shown to have been met (77, 80, 90). In other situations, pragmatic reasons,

such as distance, resulted in the assessment taking place on the day of

treatment, suggesting that parents, children and dentists were already

committed to proceeding with treatment under GA, before the assessment took

place (76, 87).

> 'There was considerable structural variation in the dental assessment
> process in respect to duration, information obtained and the availability of
> alternative treatments. One determining factor was the geography of the
> area, and the distance over which children had had to travel to access
> services.' (87: p.632)

Some GA providers could bypass formal referral and assessment processes for

acute situations, but this appeared to be informal, exceptional and not widely

available as an accessible option for GDPs (76).

2.5.1.2.4 The dental practice as a business which must remain financially viable

One qualitative interview study from England (21), and one questionnaire-based

survey from Northern Ireland (96), indicated that GDPs perceived their general

dental practices as businesses which must maintain financial viability. This

appeared to influence their willingness to accept new patients or to continue to

provide care for existing patients, if the alternative of referral was available (21).

It also seemed to affect delivery of certain types of care, such as domiciliary

visits or dental extractions, if these were not perceived to be good for the

business (21, 96).

> 'An interviewee cited examples of dentists who are "suddenly unable to
> treat patients that they have been successfully treating for years because
> of spurious medical problems or phobias."…another explained that
> "extractions are not practice builders and if you don't get paid for it then
> why would you do it?"' (21: p.3)

It was apparent from several articles that changes to GDS contracts in England

created financial levers which affected GDPs' decisions about whether to refer

patients (21, 78, 94, 95). This applied not only to the current GDS contract,

based on UDAs (21, 94), but also to previous contracts, such as capitation

payments for children (78). These financial disincentives appeared to

compound GDPs' existing unwillingness to provide care for some patient groups,

whose care was not perceived as financially viable (21, 94, 95).

> 'We found evidence that the new contract has led to dentists making
> different decisions in their daily practice and sometimes altering their
> treatment plans and referral patterns to ensure that their business is not
> disadvantaged.' (21: p.1)

2.5.1.2.5 Culture and expectations

Social and professional cultural norms, parents' expectations and dentists'

perceptions about parents' expectations relating to children's dental care

appeared to be deeply embedded and slow to change in all four countries. The

use of GA to facilitate the delivery of dental care for children was described in

the literature as having been a cultural norm for dentists and parents within the

UK for many decades (75, 77, 85, 88, 91).

> 'In the past the attitude of many dentists towards using general
> anaesthesia to treat children was one of routine acceptance…' (91: p.94)

A persistent, and legitimate, need for GA in the dental treatment of children was

identified by several authors, who depicted this need as the inevitable

consequence of social inequalities in the UK (75, 77, 79).

> '…due to the marked social class and regional inequalities in oral health,
> the need for GA facilities will undoubtedly remain.' (77: p.228)

Authors inferred that GDPs, and dentists receiving referrals for children, took

the wider social context into account when considering the legitimacy of referral

decisions relating to the use of GA (75, 79).

2.5.1.2.6 Unintended consequences of policy change

Policy change relating to delivery of dental GA appeared to have resulted in

inequity of access for those most in need, particularly in England. The literature

referred to a series of reports and guidance documents published between the

Poswillo Report in 1990 (13), and A Conscious Decision in 2000 (14). These

documents collectively disseminated a policy limiting the provision of GA for

dental care to hospital settings. The literature indicated that this represented a

major change to the cultural norm of providing dental extractions for children

under GA in dental surgeries across England (78, 81, 84, 91). According to

articles relating to England and Scotland, the primary objective of the policy

change was to improve patient safety in response to previous fatalities 80, 81,

84, 87, 90, 91).

> 'The Department of Health, through its circular *A conscious decision*
> ensured that the availability of dental treatment under general
> anaesthesia would be greatly reduced, especially in general dental
> practice. This meant that there would be an appreciable impact on
> patient services. However, the GDC considered such changed to be in
> the best interests of patients.' (84: p.561, authors' emphasis)

Commentating on the consequences of the policy change, some authors

described how the relatively sudden reduction in the availability of GA in dental

practices in England led to a sharp increase in demand for GA in other settings,

in the absence of a corresponding increase in supply elsewhere (76, 84, 91). In

addition, several authors in England and Scotland identified a lack of planning

and investment in alternatives to treating children under GA, such as developing

GDPs' abilities to treat children, or investing in equipment and training to

provide inhalation sedation (81, 87, 88, 91). This resulted in GDPs relying upon

holding measures such as antibiotics to manage symptoms, rather than

providing active treatment (91).

> 'The change in general anaesthetic policy was not adequately followed
> by a redistribution of resources to fund sufficient expansion of hospital
> services in areas of greatest need or to support training programmes for

> dentists to enable them to manage their patients using methods other than general anaesthetic.' (91: p.96)

Some authors concluded that the impact of the policy change in England, and associated reduced availability of GA for children, was felt most keenly in deprived areas, where symptomatic attendance could no longer be managed by the swift and local provision of treatment under GA (75, 77, 91). They highlighted the inequity of these consequences of the change in policy (77, 91).

2.5.1.2.7   Interpreting risk and caring for children was an emotive issue

Doing what was best for children was important to dentists but interpretations of this concept differed, especially between GDPs and community dentists. GDPs expressed concerns, rooted in personal experiences, about the risk of causing life-long dental anxiety or phobia through their attempts to provide dental care in the dental surgery (i.e. using LA) (82, 91).

> '…"three and four year olds who need loads of teeth out, and I can't do that under local [anaesthetic], well I could, but kids would come out psychologically affected".' (91: p.95)

The literature relating to England indicated that, particularly in deprived areas, GDPs were often presented with young children in pain at their first visit (75, 91). They appeared to find that the social and clinical situation confined their options to making a referral for treatment under GA (75, 77, 91). GDPs expressed great frustration that these children, for whom there was no realistic alternative to GA, were waiting for a considerable time for treatment as a consequence of reduced GA capacity (77, 91). At the same time, GDPs were portrayed as acknowledging the risks associated with providing GA in dental surgeries (91). Many referred children had been under the care of the GDP for some time prior to referral and some GDPs reported making efforts to delay or avoid a GA by prescribing antibiotics, even if active treatment was also being avoided (91).

In contrast, authors reporting from the perspective of community dentists in England and Scotland, who were directly involved in assessing children and providing treatment under GA, placed much greater emphasis on the risks associated with GA (80, 81, 84, 90). Many such authors expressed criticism of GDPs' patient selection (76, 77, 85, 90) and treatment planning (76, 77, 88, 90) for children referred for GA, and raised concerns about evidence of young children experiencing repeated GA for dental care as a result (75, 76, 85, 87, 90).

> 'Five of the referrals received for a GA were completely unjustified as the patient was not in pain, gave no history of pain and there was no evidence of sepsis or infection. This again highlights the GDPs' lack of understanding that "GA should only be undertaken when absolutely necessary"… due to the serious morbidity risks involved.' (90: p.75)

2.5.1.2.8   Communicating options and offering alternatives

Communication between GDPs and parents about alternatives treatment options, risks and benefits appeared to be insufficient for many parents to recall the discussion according to articles relating to England and Scotland (77, 86, 88, 90). Some authors implied that GDPs failed to discuss these matters with parents prior to making the referral, as required by guidance about GA (88, 90).

> '…in many cases where the referring dentist had said they had explained all the treatment options, the parent seemed unaware of what they had been referred for, and when the options were explained to parents it became apparent they were unaware of all their options.' (90: p.75)

Many, but not all, GDPs claimed to have discussed these issues with parents, suggesting that some GDPs did not perceive this to be their responsibility (77, 87, 90). It was also proposed that this information may be difficult for parents to comprehend, or parents may simply accede to the recommendation of the GDP (77, 88). Some authors acknowledged the possibility of recall bias (77, 88);

however, the extent of reporting of parents' lack of awareness of alternatives across the literature implied at least a partial failure to impart the information in a sufficiently meaningful way.

The difficulties faced by GDPs in conveying information to patients regarding options of which they themselves had little knowledge or access, were identified by several authors (77, 87, 88, 94). This related to alternatives to IV sedation for anxious adult patients (94) as well as alternatives to GA for children (77, 87, 88). Thus, it appeared that GDPs were obliged to present patients or parents with options, even though the subsequent offer of an alternative care option was contingent upon community dentists' preferences for attempting the alternative and was, therefore, beyond the control of the referring GDP (88).

> '…it is difficult for dentists to discuss the full range of treatment options [for children] when these have not been traditionally followed or may be simply unavailable…' (88: p.287)

2.5.1.2.9   Referral criteria and inappropriate GA referrals

Many authors from England, Scotland and Wales reported concerns that some of the referrals received by the CDS were inappropriate. Authors who were receiving referrals in the CDS were particularly critical of such referrals (77, 86, 90). This term was used to label referrals with a diverse range of perceived faults, from poor documentation, to issues of patient selection and treatment planning. Concerns were raised about missing clinical information, poor legibility and failure to use a service's designated referral proforma (76, 77, 85, 87, 90).

> 'Only 33 per cent of referrals received satisfied the GDC guidelines for referrals for GA. The major reason for failure to comply with the guidelines was, in 58 per cent of cases, no dental history being given.' (90: p.74)

Authors also expressed concerns about evidence of repeated episodes of dental care being provided under GA for young children and related this to inadequate treatment planning by GDPs (75, 76, 85, 87, 90). Community dentists were reportedly altering GDPs' treatment plans, in order to provide more radical treatment and reduce the risk of repeat GA (76, 90). Some authors questioned GDPs' abilities to assess whether patients' dental conditions justified the use of GA to provide care (76, 77, 85, 88, 90).

Some providers were reportedly able to offer more than one type of care, for example GA, inhalation sedation or LA (68, 76, 80, 87, 90). This could offer GDPs and their patients a more holistic care option, whereby the community dentist could try providing care using inhalation sedation but also had the option to refer internally, or to a secondary care provider, for treatment under GA, if necessary (87). However, the availability of alternatives to GA could also result in confusion and criticism; community dentists could decide to offer an alternative to GA, but GDPs were sometimes criticised retrospectively, if they had not specified the same option in their referral (80. 90).

Whilst some authors appeared to recognise that improved dissemination of referral criteria was necessary to improve referral compliance (77), others who worked in the CDS claimed that they had imparted this information already and appeared to blame GDPs for failing to make themselves aware of local criteria (85, 90). This led to a focus upon returning referrals perceived to be inappropriate, as a means to educate local GDPs (90). Some authors focused upon creating and applying increasingly rigid local referral criteria, going beyond the original GDC guidance (84).

> 'The first step was to produce a draft set of [GA] referral guidelines from relevant published literature…In addition, locally produced trust

guidelines were consulted… The second step was to distribute this draft set of referral guidelines to 20 selected experts who were asked their opinions by means of a questionnaire…' (84: p.561-2)

2.5.1.2.10 Professional responsibilities and role ambiguity

The allocation of professional responsibilities in the GA referral process was reported to be well-demarcated in GDC guidance. However, according to authors in England and Scotland, there appeared to be a potential for overlap, as both the referring GDP and the dentist providing the treatment had obligations to discuss key issues relating to the GA itself with patients or parents (77, 84, 87).

> 'It is incumbent upon both the referring dentist and on the dentist carrying out the treatment under general anaesthesia to ensure that there is clear justification for its use and other alternatives are not possible or in the child's best interest.' (84: p.565)

Moreover, the literature relating to England and Scotland showed that this had created role ambiguity, with assumptions being made by both GDPs and community dentists, about conversations between the other professional and parents at other stages in the referral process 77, 84, 86, 87, 90). This appeared to result in gaps, rather than overlaps, in communication (86, 87). As a consequence, it appeared entirely possible that some children could potentially receive treatment under GA without any discussion of risks, benefits and alternatives having taken place (87). Additionally, assumptions were being made that another dentist would attempt to provide alternative anxiety and pain management options at a different stage of the referral process (86, 87). Some authors recognised challenges for GDPs and community dentists, when having this discussion with parents (86-88).

> 'Discussing risks and benefits of alternative procedures is a time-consuming process. It may be that referring dentists assume that the

practitioner performing the GA procedure will carry this out anyway and therefore it is unnecessary for them to do so.' (86: p.28)

2.5.1.2.11 Lack of communication between dentists

Communication between community dentists and GDPs in England, Scotland and Wales was depicted as being ineffective, perpetuating problems with referral processes (87, 96). In particular, lack of communication prevented advocacy for patients by GDPs and obstructed dissemination of information and feedback from community dentists to GDPs (77, 87, 91). Authors writing from the perspective of community dentists appeared to have made assumptions that some individual GDPs were referring high numbers of patients for GA (75, 85, 90). They also appeared to expect GDPs to be fully conversant with the current referral criteria for their service, presumably based upon this assumption of frequent use of the referral system (84, 86, 89, 90). However, dissemination and explanation of such criteria to all GDPs appeared to be incomplete (77, 90).

> '…a high proportion of the respondents (62 per cent) felt that CDS guidelines for GA referral procedure needed clarification. A further 20 per cent had never seen any guidelines or did not even know of their existence.' (77: p.229)

No opportunities appeared to exist for informal dialogue between GDPs and community dentists, in order to clarify criteria, nor to advocate for prioritisation of patients in urgent need of care (77). In particular, feedback about referrals which were not accepted, took the form of written correspondence (77, 90). Whilst some authors acknowledged that community dentists needed to engage in two-way communication to improve matters (77, 85, 87), others promoted a one-way transfer of information (90).

> 'Suggested strategies to improve the referral system are first, to send referring dentists a copy of the GDC guidelines and Salford PCT referral criteria. Second, all inappropriate referrals should be sent back to the

referring dentist, highlighting the deficiency on the letter/proforma.' (90: p.76)

2.5.1.2.12 The CDS could receive, and accept, referrals when there was a lack of alternative referral options

In Scotland, it was reported that GDPs sometimes referred patients to the CDS when they perceived a lack of alternative options, or considered the alternatives to be less acceptable (68). In these situations, the CDS appeared to accept and accommodate such referrals (68).

> 'Due to the fact that the Highland area does not have a dental hospital, the majority of GDPs would refer to the community service, as would salaried dentists...' (68: p.93)

2.5.1.2.13 Limited exploration of patients' perspectives

Only a few authors, reporting from England and Scotland, had asked patients about their perspectives and experiences of being referred (77, 80). As presented above, it appeared that some patients and parents may not have received information about all their care options, in a format they could recall, before a referral decision was made (77, 86-88, 90, 94). When given the opportunity to comment, parents and patients expressed concerns about lengthy waits for care from referral services (77) but appeared to be satisfied with the care when it was received (77, 80). There was a lack of direct information in literature regarding the views of older people, whose access to, and feedback about, dental care appeared to be mediated by carers (68).

2.5.2   The referral pathway from community dentists to GDPs

2.5.2.1 Synthesising argument

Referrals from community dentists to GDPs mainly involved children, for whom community dentists felt a strong sense of responsibility. These referrals resulted from policies designed to redirect CDS resources to different patient

groups. Strong individual autonomy and weak organisational management militated against successful policy implementation in the CDS when this involved transferring responsibility for patients to GDPs. This was particularly evident when national policies were incompatible with the values and perceptions of the dentists and patients affected by, and critical to, local implementation.

2.5.2.2 Synthetic constructs

Eight synthetic constructs were generated from the articles representing referrals from the CDS to GDPs. The articles relating to this pathway were focused almost entirely upon England; one article also related to school screening programmes in Wales (72). There was limited direct exploration of the perspectives of GDPs and patients in relation to this referral pathway. Appendix 10 shows how the synthetic constructs relating to dentists' values were derived from second order constructs. Appendix 14 shows how synthetic constructs which related to dentists' values were generated.

2.5.2.2.1 Changes imposed by external policymakers

The literature primarily described referrals resulting from developments in national legislation in England (71, 72, 98-103). Policies were launched to improve access and contain costs by shifting responsibility for certain patient groups between different organisations and dentists, as mentioned in section 1.2.2. CDS capacity for providing dental care for people with additional needs was to be created by transferring children from the care of community dentists to GDPs (71, 99-102). This represented a major change in focus for the CDS, which had evolved from the School Dental Service and primarily provided long-term, routine dental care for children at that time (71, 99, 100, 102).

> 'The role of the community dental service (CDS) has changed markedly since 1974. …To achieve this, its remit was enlarged in 1978 to included [*sic*] disabled adult patients.' (102: p.134)

In addition, a national policy to promote the uptake of regular dental care by children involved signposting children's parents towards GDPs when dental disease was detected through school dental screening inspections in England and Wales (71, 72, 98, 103). The obligation to provide school dental screening was a role carried out by community dentists for many decades, although it was a contentious issue for much of that time (72, 98, 103).

> 'In England and Wales dental screening is a core function of the Community Dental Services and it is a statutory requirement that school children receive a dental inspection at least three times during their school careers (Department of Health, 1997).' (72: p.236)

2.5.2.2.2 Differing values and perceptions about roles and responsibilities

The literature indicates that the two national policies, described above, which redirected responsibility for children's dental care from the CDS to GDPs, highlighted differences in priorities between the health service managers, community dentists and GDPs in England and Wales (71, 72, 99, 100, 102). This, in turn, exposed pre-existing values-based differences in clinicians' perceptions about dentists' professional roles and the purpose of the CDS and general dental practices (72, 99, 100, 102). Viewing the issue from the perspective of community dentists, some authors expressed concerns about the potential impact of change upon patients (99, 101). They perceived a greater professional responsibility to advocate for (and act in) patients' best interests, than to implement the policy as intended (99, 100).

> 'Most of the community dental officers admitted to some difficulty in accepting the policy of transferring children, most notably those who had entered the service when it was a school dental service.' (100: p.282)

Conversely, it appeared that health service managers and other clinicians in England and Wales viewed the situation differently (72, 100). Some authors suggested that some GDPs may have placed a lower importance upon oral disease management in children than community dentists did, and may not have perceived it as their role to accept child patients from the CDS (71, 72, 99, 102).

> 'It [school dental screening] also highlights a possible tension between screening practice and general dental practice. For example… many general dental practitioners feel that caries in the primary dentition should not necessarily trigger a referral from screening…' (72: p. 238)

2.5.2.2.3 Incompatible professional groups

Community dentists and GDPs in England and Wales were portrayed, by authors writing from a Dental Public Health perspective, as two completely separate professional groups which were unable to work together at an organisational, nor individual, level (71, 100). This appeared to be a consequence of inherent differences of values, role perceptions and priorities (72, 99, 100). The CDS and general dental practices were also depicted as being divided by a lack of communication at an organisational level, resulting in failure to overcome negative stereotypes of other dentists by both community dentists and GDPs (71, 100).

> 'Dental surgeons from all branches of dentistry will view the overall picture from their own cloistered position, often regarding colleagues in other branches in a confrontational 'them and us' way.' (71: p.419)

In the context of this particular policy change, community dentists expressed these negative perceptions as moral concerns over whether patients should be asked to seek dental care elsewhere (99, 100).

> 'The fact that one in three of these patients refused to participate raises the question of whether it is right to force patients to leave the CDS

against their will… the philosophy of referring such patients to the GDS, as envisaged by the Department of Health, may fall short of caring for our patients properly…' (99: p.5)

2.5.2.2.4   Autonomy counteracted policy

Both GDPs and community dentists in England appeared to maintain a

significant degree of clinical autonomy (100, 101). This militated against

successful implementation of the national policies in England (100, 101).

Community dentists appeared to struggle, at a personal level, with the

requirement to discharge children who had a regular attendance pattern and

with whom they had built up a good relationship (99, 100, 102). This

requirement appeared to be at odds with some community dentists' beliefs

about the purpose of the CDS and, specifically, their professional roles in caring

for children, particularly those in potentially vulnerable circumstances (99, 100).

The wide variation in the proportions of child patients perceived, by different

community dentists, to be eligible for transfer, appeared to relate to community

dentists' own interpretation of the eligibility criteria, in the context of their

personal beliefs, and their consequent willingness, or otherwise, to discuss the

transfer option with families (100, 101).

> 'A considerable degree of autonomy was allowed… Guidelines laid down were flexible and seemed to be entirely dependent upon the interpretation of the individual dental officer.' (100: p.282)

GDPs' limited willingness to accept children, as new patients, was

demonstrated by the small proportion of GDPs who volunteered to do so, and

the conditions which some volunteers applied (101).

> 'A letter was circulated to all dental practitioners…asking whether or not they would be prepared to accept new child patients under such a transfer scheme. This was circulated to 125 practitioners, and replies indicating willingness to participate were received from 23.' (101: p.161)

2.5.2.2.5 Systemic lack of coordination in primary dental care

Failure of coordination, collaboration and communication at organisational and individual levels in PDC appeared to be widespread and detrimental to policy implementation in England and Wales (72, 98-101). The structure and management of general dental practices and CDSs reported in the literature were fundamentally different. General dental practices were led by individual dentists and remained largely independent of health service managers (71, 72, 98, 100, 101). In contrast, the CDS operated within the wider health service management structure, managed locally by district dental officers (71, 99-102). Communication between health service managers and dentists was indirect and ineffective (100). This appeared to be compounded by managers' lack of authority over GDPs (100).

> 'Whilst central guidance places obligations upon district dental officers to implement national policies, their ability to do so is circumscribed, to an extent, by the independence of general dental practitioners and family health services authorities.' (100: p. 285)

Both national policies appeared to be open to considerable interpretation by dentists. The transfer of children to general dental practices was deemed to have been inadequately monitored, with excessive loss to follow-up (72, 98). This was exacerbated by the informality of the transfer processes, as well as limited technology for monitoring both processes and outcomes (72, 98-100). Overall, the policies were depicted as ineffective, both in transferring child patients from the CDS to GDPs in significant numbers and in improving the oral health of children screened at school (72, 98-101, 103).

> 'Thus of the 636 Community Dental Service patients eligible for transfer, only 62 (9.7 per cent) were apparently successfully transferred to a general dental practitioner.' (101: p.162)

2.5.2.2.6 Integration was possible but exceptional

Examples of successful integration and collaboration between dentists did exist

in England, but appeared to be exceptional. One notable feature of those

situations was the involvement of dentists or patients in tailoring service

developments to meet local needs, thus overcoming their concerns and

promoting patient transfer (70, 102). For community dentists and satisfied

parents or patients, maintaining some consistency between previous and future

ways of providing care was found to improve confidence and overcome transfer

problems (102). This was achieved by providing care using the same site or

support staff (102).

> 'It was decided to recruit an independent GDP to work at the [CDS] clinic
> on a day when the CDO [Community Dental Officer] was not working
> there. … Continuity was provided by retaining the community dental
> nurse to assist the GDP.' (102: p.135)

Personal endorsement by a trusted clinician facilitated transfer of anxious adult

patients to an unfamiliar clinician and site (104). Accommodating patients'

preferences by offering dental care in patients' preferred dental service

appeared to promote uptake of regular dental care, for people who felt

uncomfortable about attending general dental practices (70).

> 'These referrals were made [to CDS and PDS settings] as many of the
> [drug] users had expressed some reticence about being referred to a
> GDP.' (70: p.387)

2.5.2.2.7 Limited exploration of GDPs' perspectives

The reorientation of GDPs' patient responsibilities was not explored from the

perspective of most GDPs. In England, it appeared that policy change and

implementation was communicated through limited methods, unlikely to reach

all practitioners (100). The potential administrative burden of additional

voluntary initiatives, coinciding with compulsory changes in practice

administration, appeared to contribute to GDPs' reluctance to take part (101).

2.5.2.2.8   Limited exploration of patients' perspectives

The patient's perspective was rarely considered in the literature, particularly

regarding transfers following school dental screening. However, it was clear

from the literature relating to England that when patients' and parents' opinions

were sought about being asked to transfer from a familiar setting, many

indicated a preference to maintain their existing arrangements for dental care

(99, 104). Reluctance to accept change presented as requests not to be

transferred, or requests to return to the original service after being transferred

elsewhere (99). It appeared that some patients responded by failing to attend

with the new GDP after a transfer (99, 104), suggesting that they were not

comfortable with going to an unfamiliar setting or the necessity to forge a new

relationship. In some cases, this also resulted in a failure to re-establish a

relationship with the original service (99).

> "I didn't want to let them down, but I didn't go to the new man." (104: p.54)

For some patients, actual or anticipated negative experiences acted as barriers

to starting or maintaining attendance in an unfamiliar dental setting, with an

unfamiliar dentist (70, 104). In particular, anxious patients anticipated that

unfamiliar dentists would be less accepting of their anxiety and less supportive

during their care, than the dentist at the dental anxiety clinic (104).

> "'They do not seem bothered with your problems. They just want to
> finish the treatment.'" (104: p.54)

2.5.3   The referral pathway between community dentists

Three articles which explored referral pathways also reported internal referrals which occurred within CDSs, although these referrals were not the main focus of the article and limited relevant information was available.

2.5.3.1 *Synthesising argument*

Referrals were made between community dentists to accommodate the patient management needs of potentially vulnerable patients by providing a flexible service. Utilising community dentists' diverse skill mix could facilitate patient care to be delivered wholly within the CDS, whether or not alternative services were available. This flexibility took the form of providing patients with a choice of provider organisations, providing a range of methods to support patients to cope with care, and appeared to avoid the need for a further referral to secondary and tertiary dental services for some patients. Variation in the branding of CDS organisations could promote acceptance of care from reluctant patient groups.

2.5.3.2 *Synthetic constructs*

Five synthetic constructs were identified in these articles, as listed in Appendix 11; however, two constructs indicated that the literature did not explore the perspectives of patients, nor community dentists. The remaining three constructs are presented below. These articles related specifically to England (69, 70) and Scotland (68). Appendix 15 indicates the second order constructs from which the synthetic constructs relating to diversity within the CDS were developed.

2.5.3.2.1   Referrals between colleagues facilitated patient care within the CDS

Within CDS organisations in England and Scotland, community dentists

appeared to use the skill mix of colleagues in order to provide patients with care

(70), when it was beyond their own ability (68, 69). This appeared to be

preferable to making a referral to a secondary or tertiary care provider, whether

or not that option was available (68, 69).

> 'Most general and salaried dentists would refer [elderly people] to the Community Dental Service and community dental officers to a special needs colleague.' (68: p.90)

2.5.3.2.2   Community dentists had a range of skills and experience

Community dentists in England and Scotland often had a broad background of

experience across PDC settings and possessed some postgraduate

qualifications (69). However, they appeared to welcome more training to

provide for patients with increasingly complex needs (68).

> 'Community dentists however saw that the provision of difficult treatment was the main reason for referral. Perhaps this is another indication relating to the growing complexities of the elderly population and why so many community dentists want extra training.' (68: p.93)

2.5.3.2.3   The CDS represented a diverse group of services

The CDS in England and Scotland encompassed many different organisations

which had diverse service roles and patient groups (68-70). These services

were perceived differently by potential patients, which could influence their

relative acceptability (70).

> '…they [drug users] do not feel stigmatised when attending the PDS, whereas referral to the Department of Special Care Dentistry (viewed by many people as a service not providing care for 'normal' patients) may actually reinforce a feeling of exclusion.' (70: p.387)

2.5.4   The referral pathway between GDPs and specialists

2.5.4.1   Synthesising argument

GDPs referred patients to specialists for specific items of technically difficult care. Referrals to specialists based in PDC operated in diverse ways, which appeared to be influenced most strongly by the demand for, and capacity of, those services. GDPs were considered to have a gatekeeper role when specialist services were under pressure. GDPs' referral decisions were heavily influenced by non-clinical factors, including the financial implications for their dental practice, their knowledge or perceptions about the availability of specialist services, and their assumptions about patients' perceptions. These factors could promote, discourage and even prevent GDPs offering, or making, referrals for patients.

2.5.4.2   Synthetic constructs

This referral pathway included literature exploring many dental specialties and generated 17 synthetic constructs, which are listed in Appendix 12. The specialties considered in the included articles were orthodontics (51, 55, 105-115), oral surgery (52, 53, 74, 106, 116-122), restorative dentistry (50, 123-126) and its mono-specialties, periodontology (127-130) and endodontics (131), as well as oral medicine (132). The articles reporting this pathway related to England, Scotland and Northern Ireland. There was little direct exploration of this referral pathway from the perspectives of GDPs or patients, in the sourced literature. Appendix 16 indicates the second order constructs which contributed to developing synthetic constructs relating to the influence of secondary care upon referrals.

2.5.4.2.1   GDPs referred patients for complicated dental care

Referrals to specialists in PDC in England, Scotland and Northern Ireland

represented requests for technical, specialist skills or knowledge to manage, or

advise GDPs about, specific aspects of patient care which were considered too

complicated for the GDP to manage alone (108, 110, 116, 118, 126, 127, 129,

131). This required GDPs to anticipate and predict the technical difficulty of the

proposed treatment in the context of the patient's general health.

> 'The commonest two reasons for referral were the anticipated difficulty of
> surgery and the complicated nature of the medical history.' (118: p.143)

2.5.4.2.2   GDPs referred patients as a precaution

GDPs in England, Scotland and Northern Ireland appeared to refer patients who,

they perceived, might benefit from specialist care. This could include

precautionary referrals for patients whose oral condition represented a medico-

legal concern (127), patients whose oral condition was mild and might not meet

referral criteria (51, 110, 111) and patients whose treatment might be

complicated (116, 118). This appeared to have the benefit of removing

responsibility from the GDP for any side effects or complications, if the

treatment did transpire to be difficult (117).

> 'Post-operative sequelae… were not seen as a large 'practice loser'… if
> they were caused by a 'specialist'.' (117: p.210)

2.5.4.2.3   Non-clinical factors and GDPs' perceptions influenced referral decisions

In England, Scotland and Northern Ireland, GDPs' perceptions of the existence

(50, 106, 122, 129, 131), availability (waiting time) (53, 107, 109, 117, 118, 127),

accessibility (distance) (117, 118, 126-129) and quality of referral services (118)

appeared to influence their referral decisions. These influencing factors

appeared to be assessed subjectively and based upon past experience (108,

118, 131), local contacts (109, 118, 131) or practice norms (53, 129, 131). In

articles relating to England and Northern Ireland, case complexity and the

suitability of the provider service to manage the case did not drive such

decisions (51, 108, 109, 118, 129, 131), unless this was dictated by rigid referral

criteria (52, 108, 109, 120).

> 'Overall the most commonly stated reasons [for selection of a referral
> service] were the standard of treatment provided, the length of waiting
> lists, personal knowledge of the orthodontist and ease of access for
> patients. The difficulty of treatment and standard of the orthodontist's
> report were of little concern.' (109: p.463)

In addition, GDPs' assumptions about patients' values and willingness to

consider referral appeared to influence whether, and how, GDPs considered,

offered and presented the option of referral, in England and Northern Ireland.

This applied to referrals for periodontal treatment (127, 129), orthodontics (110),

endodontics (131) and the provision of implants (133). Some authors

suggested such assumptions could result in failure to refer patients who might

benefit from referral (127, 131, 133).

> 'Many dentists seemed to operate a form of triage in which they referred
> only those patients whom they believed were co-operative and would
> benefit from periodontal care… a substantial number of dentists,
> conscious of previous refusals, had given up trying to persuade patients
> that referral was necessary.' (127: p.660)

2.5.4.2.4   There were financial incentives, and disincentives, to refer patients

In England, the 2006 GDS contract appeared to promote referral to reduce the

workload required to obtain a standard fee, or to avoid providing a treatment for

which the fee was perceived to be inadequate (21, 118, 133, 134).

> '…"if you have a large treatment plan and you can refer on aspects of
> that treatment plan while still being paid the same fee then you are much
> more likely to refer"…' (21: p.3)

However, in England and Scotland, it was reported that referring patients could take up time (thus having an opportunity cost) through gathering clinical information and completing documentation (112, 124).

2.5.4.2.5 GDPs could perceive specialists as a threat

Authors suggested that GDPs in England and Scotland were conscious that referring a patient to another GDP who provided specialist services in general dental practice held a risk that the referred patient may elect to receive their general dental care from the other GDP (106, 117, 130). This could impact on GDPs' willingness to refer to other GDPs (106).

> 'A potential barrier to referring patients to a GDP orthodontist is the risk that the patient, even the whole family, might transfer their allegiance to them.' (106: p.144)

2.5.4.2.6 Variation in specialist service models and availability

The literature described pronounced geographic variation, within England, Scotland and Northern Ireland, in the availability and distribution of specialist services, and acknowledged an associated inequity of access (55, 124, 126, 127, 131). This appeared to contribute to difficulties for service providers in explaining the structure of local services and pathways to all relevant referrers and for GDPs to establish how to use local services correctly (50, 106, 122).

> 'A patient living in rural Northumberland has little chance of access to an orthodontic specialist, although in Surrey, no matter where you live, you will have a choice of more than one specialist practice within a few miles.' (55: p.249)

Common service models in England and Northern Ireland included limited specialist practices (50, 107, 127, 128, 131) and commissioned services provided by DwSIs or specialists (52, 53, 121, 123, 130) . Some service models appeared to have evolved gradually, particularly those involving

specialists based in specialist practices, such as orthodontics and restorative specialists (50, 108, 127, 128, 131). Others, notably oral surgery services, had been commissioned to tackle a strategically-identified treatment need, facilitated by more recent developments in defining specialist lists (52, 53, 120-122).

2.5.4.2.7   GDPs were considered to be gatekeepers to specialist services

GDPs were described as gatekeepers to specialist services, in England and Northern Ireland (51, 109, 119, 131). However, they appeared to have an incomplete knowledge of the specialist services available (50, 106, 122, 129, 131), the purpose for which services were commissioned (53, 108) and the distinct roles of the specialists and consultants who delivered them (107-110, 121, 129). When considering where to refer patients, GDPs appeared not to perceive their role as being to differentiate between different specialist grades and services (109, 129), nor to discriminate between the complexity of cases above a referral threshold (107, 122, 127, 131). It appeared that some dentists preferred to hand over responsibility for defining patients' care pathways to a specialist (107). GDPs were not necessarily aware of their own impact upon waiting times through early (premature) referral of individual patients or referral to less appropriate providers (51, 106, 109, 114).

> 'Early referrals may be made by the dentist to circumvent a long waiting list and, while made with the patients' best interests in mind, may have the effect of lengthening the waiting list, thereby depriving other patients who may be ready to receive treatment.' (51: p.5)

2.5.4.2.8   Referral systems worked better with clear referral threshold criteria

Referral processes in England appeared to work more efficiently when they involved structured, written referral formats, triaged by specialist providers who could refer the most complicated cases directly to secondary care services (52,

53, 120-122). Referral processes appeared to work less efficiently when they involved vague, informal referral formats or when there was no triage process prior to patients joining a waiting list (108, 110, 111). Problems also occurred when GDPs were required to predict case complexity beyond a referral threshold and to specify which specialist pathway the patient should take (108-110).

> '30 per cent of patients referred to the hospital or specialist practitioner were judged in one study to have been unlikely to gain worthwhile benefit from treatment… In most cases of disagreement, GDPs considered intervention earlier and regarded treatment as more complex than the orthodontist.' (110: p.149)

In some cases, specialists appeared to compound problems, through their reluctance to provide GDPs with clear information about criteria and by accepting referrals which did not meet threshold criteria (111). This created an opportunity cost, as it used resources which could have been allocated to patients with more potential to benefit from care.

2.5.4.2.9 Pressures upon secondary care prompted action on managing referrals

In England and Northern Ireland, commissioners and secondary care providers appeared to be prompted to act to manage referrals by pressure on specialist secondary care services, presenting as long waiting times or recognition of poor cost-effectiveness (52, 53, 109, 114, 121, 132). These actions included managing perceived inappropriate referrals by developing detailed referral criteria (111, 120), educating GDPs about existing referral criteria (106), or creating triage systems to prevent such referrals reaching consultants in secondary care (132). Legitimate increases in referrals for specific treatments were managed by commissioning specialist care provision in the primary care setting and simplifying referral criteria (52, 53, 121).

> 'In 1994 waiting times for hospital for oral surgery and maxillofacial procedures were unacceptably long. A proposal to establish a primary care oral surgery service aimed to complement the hospital-based service, reduce treatment delays.' (53: p.5)

2.5.4.2.10 Referrals could be perceived as inappropriate

Referrals were termed 'inappropriate' in specific situations in England, where it was perceived that referred patients should have been managed in another setting, especially when demand for secondary care services was high (53, 106, 110, 112, 121). Inappropriateness was reported frequently by commissioners and those investigating high-demand secondary care services such as orthodontics (110, 114) and oral surgery (53, 121), but was not usually reported by independent specialists working in the business setting of a dental practice.

> '…a high proportion of referrals made to UK orthodontic consultants are judged to be inappropriate and this adds unnecessarily to consultant waiting lists.' (114: p.138)

Some authors using the term 'inappropriate' appeared to assume that GDPs were familiar with sufficient specialist knowledge to predict these cases accurately (50, 108-110, 119). Treatments which transpired to be more straightforward, or more complicated, than a primary care-based specialist service was expected to provide, could be retrospectively defined as inappropriate (109, 110, 121). Patients who were referred too early, or too late, for treatment, or whose clinical need did not reach a specialist-defined severity threshold, were also deemed inappropriate (55, 106, 110, 121).

2.5.4.2.11 Innovative commissioning resolved pressures on secondary care

Policy changes and legislative changes in England promoted coordinated improvements in referral service design, commissioning and delivery; this was particularly evident in Minor Oral Surgery services (52, 119, 121). These

services were illustrated as a novel and cost-effective solution to capacity

problems in secondary care, based upon a business model with potential to

increase capacity to match demand (52, 53, 119-122).

> 'By 2006, the policy document *Guidelines for the Appointment of Dentists with Special Interests (DwSIs) in Minor Oral Surgery* had been published. This enabled Primary Care Trusts (PCTs) to contract with suitably skilled local dentists…' (52: p.137, author's emphasis)

2.5.4.2.12 Coordination of specialist services appeared to influence efficiency

Some specialist services, such as orthodontics and restorative dentistry,

appeared to operate in a haphazard manner, through multiple independent

dental practices in England and Northern Ireland (105, 108, 110, 111, 131).

This resulted in the inefficient use of secondary and primary care-based

services and potentially delayed patient care, from a population perspective

(108, 110).

> 'Because of the disparities in funding and organization across the GDS, CDS and HDS [Hospital Dental Service], there has been little opportunity to plan and coordinate orthodontic services.' (110: p.149)

In contrast, other specialist services, such as oral surgery, appeared to be

commissioned and coordinated in England for the specific purpose of efficiently

managing demand upon secondary care providers, as well as meeting

objectives to make specialist care more accessible for patients (52, 53, 120,

121).

2.5.4.2.13 Use of technology could improve equitable access

Piloting the use of teledentistry appeared to benefit patients in England,

Scotland and Northern Ireland, through faster response times and by

eliminating the inconvenience of travel, saving time and money as well as

making access more equitable for infirm patients (55, 112, 114, 115, 124, 126,

132. Teledentistry appeared to have considerable potential as a means by which to triage referrals for secondary care services (55, 124, 132).

> 'An unexpected benefit of this [oral medicine teledentistry] service development was successful community based management of a number of elderly patients… As a result the majority (65%) of the community group of patients avoided hospital based treatment entirely.' (132: p.403)

However, teledentistry relied upon GDPs and consultant services investing money in equipment and time in learning how to use it (55, 112, 114, 115, 124, 132). The referral process could be more time-consuming than conventional methods (55, 112). GDPs' and consultants' willingness to try teledentistry was influenced by their interest in technology and concerns about its impact upon their overall workload (55, 112, 114, 115). The literature suggested that most teledentistry pilot schemes had not progressed further.

2.5.4.2.14 Outreach services could benefit patients but incurred opportunity costs

Outreach consultations in PDC in England and Scotland benefitted patients through reduced travel time, costs and inconvenience when compared to hospital visits (113, 124, 125). However, infrequent outreach services in remote areas could delay patients' access to specialist care, especially when compared with teledentistry (124).

> 'Currently, patients living in Orkney may have to wait six months for an outreach visit…Poor access to services may result in some patients being denied timely health-care that would improve their quality of life.' (124: p.175)

Whilst outreach services in dental practices promoted communication between GDPs and specialists, as well as providing educational opportunities for GDPs, they were, reportedly, disruptive to dental practices overall (125). Outreach

services had opportunity costs for consultants and GDPs (113, 124, 125). They

were not perceived as a substitute for secondary care-based consultant

services (113, 124, 125).

2.5.4.2.15 Specialists in practice perceived GDPs as customers

In England and Northern Ireland, authors reported that specialists in practice

operated on a business model in which the demand for their services was

entirely generated by referrals from GDPs, whom they perceived to be

customers (50, 52, 107, 116, 119, 131). Specialists appeared to recognise that

GDPs' needs and priorities must be understood in order to generate sufficient

business, especially if there was local competition from other specialist

providers (50, 52, 107, 116, 131). Specialists were aware that short waiting

times, good communication and close proximity were important to GDPs when

they were considering whether to suggest referral to patients and which

provider to recommend (50, 107, 131).

> 'The success of a specialist is dependent on GDPs providing a continual
> flow of referrals… It is therefore important for specialists to recognise that
> referring healthcare professionals is a customer category… and to
> understand the factors that influence the decision of GDPs to refer to a
> specific specialist.' (131: p.21)

2.5.4.2.16 Limited exploration of GDPs' perspectives

The limited direct information in the literature from GDPs' perspectives was

consistent with authors' perceptions of GDPs' perspectives regarding priorities,

incentives and barriers to making referrals in England and Northern Ireland.

GDPs reported concerns about waiting times (129) and acknowledged the

influence of financial levers upon referral decisions (21, 118, 134). Perceived

barriers to accessing referral services were identified to include costs to patients

(129, 131), travelling distances (129) and a perception that patients may not value their oral health sufficiently to make referral worthwhile (129).

> "'So because it's quite a way to go, I don't tend to send that many patients.'" (129: p.3)

GDPs were keen to receive more information, more quickly, from specialists about individual cases, fees and waiting times (107, 115, 129). Some GDPs were unaware of the availability of nearby specialist services (129); others appeared to be convinced that some specialist services were unavailable locally (131).

2.5.4.2.17 Limited exploration of patients' perspectives

There was very limited information in the literature regarding patients' experiences and preferences, and this literature related only to England. When preferences for outreach services were expressed by patients (109, 113), they did not appear to hold much weight with some secondary care-based authors (113). Authors who reported that patients valued the manner and skill of primary care-based specialists, also appeared to be the specialists who were providing those primary care-based specialist services (120, 122).

2.6   *Summary of findings*

The majority of the articles related to referrals taking place in England, with a minority relating to other countries of the UK. Therefore, the findings may be more relevant to the referral context in England and less representative of the situation in the devolved nations. The literature illustrated that three main referral pathways and one minor pathway existed within PDC in the UK. Referrals through these pathways were made for contrasting reasons and operated differently, whilst sharing some common features.

2.6.1   Summary of the three referral pathways

Referrals from GDPs to community dentists usually occurred when GDPs felt

patients needed more support to achieve their routine dental treatment than

other patients. Such referrals generally related to potentially vulnerable

individuals, particularly children, anxious adults and frail, older people. Referral

decisions were influenced by GDPs' willingness and ability to support patients

to manage routine treatment, in the context of running the dental practice as a

business. Problems with this type of referral were associated with variations in

dentists' perceptions about how much time and effort GDPs should spend on

helping patients who needed a little more support, but did not require sedation

or GA to receive treatment.

Referrals from community dentists to GDPs usually occurred in response to

national policies affecting England, which were designed to reorient limited

healthcare resources towards different patient groups. Unlike other pathways,

these referrals involved permanent handover of responsibility for the care of

entire groups of patients from community dentists to GDPs. Problems occurred

because these policies did not fit with values and priorities of dentists or

patients, who were all reluctant to accept change. In addition, health service

managers were unable to enforce policy implementation.

Referrals from GDPs to specialists based in PDC generally related to specific,

technically complicated treatments, rather than patient groups. Referral

decisions were influenced by GDPs' perceptions of the availability, accessibility

and quality of referral services and their assumptions about patients' priorities.

Problems occurred when specialist services were not coordinated between

primary and secondary care, putting secondary care specialist resources under

pressure. Referrals to specialists based in primary care operated well for all

concerned when the referral services used a cost-effective business model, coordinated with secondary care.

2.6.2   The impact of policy and geography

Some legislative changes led to unintended consequences which compromised the effective delivery of PDC for referred patients. It appeared that these changes were not accompanied by adequate alternative resources, coordination and management. This was illustrated by the long waiting times which resulted from prohibiting GA in general dental practices without increasing capacity for GA in CDS-provided, hospital-based services. However, for specialist referral services, facilitative policy developments had been utilised to permit suitably skilled dentists to work in cost-effective services which benefitted referred patients, especially in primary care-based oral surgery.

There was considerable geographic variation in the availability and organisation of referral services within PDC across the UK. This was considered to contribute to inequalities in patient care. This particularly affected rural and remote areas with no local provision for most dental specialties, areas of deprivation where high-demand GA services were withdrawn without replacement, and domiciliary care provision for frail, older people.

2.6.3   Role ambiguity and role conflict

Synthesis of the literature suggested that there had been conflict and ambiguity regarding the roles of primary care dentists in the UK, which had influenced referrals within PDC. Role conflict can occur when a person is expected to comply with instructions which are contradictory to each other, or to the person's moral values (135). GDPs experienced conflict between financial remuneration and providing treatments for time-consuming patients. This

appeared to promote the referral of patients to the CDS for problems described as dental anxiety. Community dentists experienced conflict between moral responsibilities and policy requirements, which appeared to prevent them from discharging patients from the CDS as required.

Role ambiguity can occur when a person is unclear about the actions and responsibilities which they are expected perform in a particular role within an organisation (135). Ambiguity regarding the level of patient management which GDPs were expected to provide appeared to contribute to disagreements about who was responsible for providing dental care for some patients. GDPs appeared to consider some patients' requirements for support to lie beyond the remit of the GDS, whereas community dentists sometimes perceived the same patients' support requirements to fall short of the remit of the CDS. The synthesis suggested that the care of some patients fell into a void between the two roles, because both GDPs and community dentists were reluctant to provide certain patients with dental care. There was no indication, in the literature, that these issues between GDPs and community dentists have been resolved as yet.

2.6.4 The impact of dentists' autonomy and non-clinical factors

In all three main referral pathways, dentists exercised considerable autonomy in order to influence the referral process, when making and receiving referrals within PDC. They achieved this by choosing whether or not to discuss the option of referral with patients (or their representatives), or deciding whether to accept or reject referrals for patients, before or after meeting patients in person. It appeared that dentists had considerably more influence than did patients, or their representatives, at all decision-making stages of the referral process.

Patients were apparently rarely invited to state their preferences and their influence appeared limited to choosing whether to attend the referral service, after dentists had decided whether to offer an appointment.

Overall, dentists' decisions were strongly influenced by non-clinical factors, particularly:

- Their own values and perceptions of their role;

- Their perceptions about the availability and quality of care from other primary care dentists;

- For GDPs, the financial impact of making a referral, or not doing so, upon themselves and their dental practice.

2.7   Rationale for further research

Whilst the impact of non-clinical factors upon dentists' referral decisions has been identified through synthesis of the literature, these findings were predominantly derived from second order constructs, that is, the interpretations of the authors of the articles.   Very few authors had engaged participants directly, using qualitative research methods, and therefore the perceptions of dentists, as well as those of patients, were rarely captured. Dentists' perceptions about referral services and the financial consequences of referral decisions have been explored with dentists by a few researchers (21, 77, 91, 94, 129). However, the interview studies identified within this systematic review have touched only obliquely upon GDPs' role perceptions (21, 91, 129). Furthermore, community dentists' perceptions of their roles have not been researched since the early 1990s (100).

The original systematic review did not set out to explore dentists' perceptions; however, as the findings indicated that this topic had relevance, a subsequent search of four databases was undertaken, to check for additional relevant literature. This search, most recently updated on the 23rd of March 2017 and detailed in Appendices 17 to 19, identified only one qualitative study relating to dentists' perceptions of their roles. This study, published in 2003, involved focus groups with GDPs which explored their roles in relation to the specific issue of child protection and child abuse (136). The findings showed that a responsibility for child protection was not embedded in GDPs' perceptions of their own clinical roles, that they lacked confidence about identifying or dealing with child abuse and were reluctant to report concerns. This study also identified that GDPs felt isolated from other dentists and generally described their roles in terms of solving clinical problems, rather than taking a 'holistic approach to patient care' (136: p.91). This study offered some insight into how GDPs' role perceptions may influence their engagement with certain vulnerable patients. However, it did not provide a comprehensive illustration of dentists' perceptions of their professional roles, nor did it explore community dentists' perceptions.

Having searched the literature to address the broad question of what happens when patients are referred within the UK PDC setting, as well as the more focused question of how dentists perceive their professional roles, it appeared that very little research has been conducted to explore dentists' perceptions of the meaning of their professional roles. Given that dentists appear to control most referral decisions and dentists' perceptions appear to influence their decisions to make, decline or accept referrals for patients within PDC, this topic merits further investigation through primary research, as it may affect patients'

care experiences. Therefore, the exploration of dentists' perceptions of their professional roles, in the context of referrals within PDC, became the focus of my thesis.

2.8 Summary

In this chapter, the methods for data collection and synthesis for this systematic review have been described in detail. A detailed synthesis of the literature included in the systematic review has been presented. This highlighted the non-clinical factors which may influence what happens when patients are referred within the UK PDC setting. In particular, it indicated that dentists' perceptions of the meaning of their roles may contribute to variations in making, accepting and declining referrals within PDC. It was evident that very little research has explored, with primary care dentists, the meanings they ascribe to their roles. In Chapter 3, I propose a theoretical approach to developing primary research in order to investigate these meanings and their significance in relation to referrals.

Chapter 3   Aim and Theoretical Perspective

3.1   Introduction

In Chapter 2, I presented the findings of a systematic review of the literature relating to referrals within PDC in the UK, much of which related specifically to PDC in England. As a result of this review, I identified a gap in the literature relating to the meanings which dentists attach to their professional roles in the context of making referrals. In this chapter, I will set out the aim and objectives of my primary research study, which was devised to explore this knowledge gap. This is followed by an explanation of the theoretical perspective underpinning the research design, including the ontological and epistemological assumptions, the research strategy and the research paradigm which I considered to be most appropriate for exploring the research objectives. Finally, justification is provided for the application of Giddens's Structuration Theory, a Feminist Sociology of Work and Strauss's Social Worlds/Arenas Theory in this thesis.

3.2   Research problem

The systematic review presented in Chapter 2 indicated that decisions about making and accepting referrals for patients within UK PDC were contingent upon many non-clinical factors. Decisions about referrals to specialists were predominantly associated with GDPs' knowledge, or perceptions, of the accessibility and quality of referral services. Decisions about transferring patients from the CDS to GDPs were dominated by policy requirements and value judgements. GDPs' decisions to refer to the CDS were influenced by role perceptions and GDS contracts. Disconnection and resentment appeared to exist between GDPs and community dentists.

The literature indicated that, in relation to specialist services in UK PDC, solutions had been developed to overcome accessibility issues and GDPs' knowledge gaps, through national legislation and local commissioning initiatives. In contrast, much of the information about referral pathways between GDPs and community dentists was historical, pre-dating the major English GDS contractual changes made in 2006 and more recent NHS England policies designed to create MCNs, as mentioned in Chapter 1. It was evident, from the more recent systematic review articles, that these changes were introducing further variations in the provision of NHS-funded PDC between England and the devolved nations of the UK. However, it was unclear, from the systematic review, whether the previously reported issues of disconnection and resentment between GDPs and community dentists had been resolved. In addition, the literature rarely presented PDC referrals from the perspectives of the dentists themselves, so their perceptions of values and roles were not fully explored in the existing documentary evidence.

In summary, the effects of dentists' awareness of referral services and the financial consequences of referral decisions to specialists based in PDC have been rendered explicit by existing research. However, dentists' perceptions of their roles within PDC, and the significance of these perceptions in relation to referrals from GDPs to CDSs, have not been explored in any great depth.

3.2.1   Research aim

Consequently, this research study was designed with the aim of exploring dentists' perceptions of their professional roles in the context of referral decisions within PDC in England. It focused specifically upon the roles of GDPs

and community dentists. The rationale for considering specifically those

dentists working in the English PDC system is detailed further in section 4.4.2.

3.2.2 Research objectives

The overall aim of the study was further specified as four research objectives,

presented as questions:

- What does it mean to be a GDP?

- What does it mean to be a community dentist?

- What are dentists' perceptions of the boundaries of these roles?

- How do these meanings, perceptions and expectations relate to the

  experience of making and receiving referrals, within PDC?

This final question was intended to bring together dentists' perceptions of the

meanings of their professional roles, in general, with their perceptions of the

referral process, in particular. Exploring these questions of perception can be

achieved through qualitative research, involving primary care dentists as

participants who are able to express their perceptions in their own words. The

rationale for this approach is presented in the remainder of this chapter.

3.3 Role identities

Within social psychology, the concept of role is closely linked to that of identity

within a social structure (137). Identity theory relates the two concepts thus:

'the core of an identity is the categorization of the self as an occupant of a role,

and the incorporation, into the self, of the meanings and expectations

associated with that role and its performance' (137: p.225). Stets and Burke

explain that identities are constructed by individuals as they align themselves

with certain roles which have a meaning within society and are distinguished

from other roles in terms of the 'perceptions and actions that accompany a role' (137: p.226). Therefore, throughout this thesis, the term 'role', in the context of dentists' professional roles, refers to the concept of people's internally and socially constructed role identities, rather than their externally defined job descriptions.

3.4   Theoretical perspective

Qualitative research involves the use of language as data, to explore research questions which relate to the social world (138, 139). Qualitative research not only situates research participants in context, but also acknowledges that the researcher's own context is relevant to their choice of research question, the research process and its outcomes (139, 140). In contrast, quantitative research uses numerical data, often separated from context, and is usually applied in the natural sciences (138).

The aim and objectives of my study required consideration of dentists in context, as individuals who are also part of a profession, working within a society, and within the organisations which comprise PDC, in particular. That is, this research problem related to the 'social world' (141: p.232), rather than the natural world. More specifically, the aim and objectives required exploration of dentists' perceptions of meaning, which can only be researched by enabling dentists to communicate their perceptions, through language (139). Hence, the most appropriate approach to this research problem was to adopt a qualitative methodology.

Historically, research within dentistry has been dominated by the use of quantitative research methods rather than qualitative methods (142). In addition, where qualitative methods have been applied to dental research

questions (21, 129), this has often been reported without reference to the

theories and assumptions which underpin qualitative methodologies and relate

to our understanding of the social world, as distinct from the natural world (143).

The sociologist Nettleton's (144) Foucauldian analysis of how the dental

profession exercises power through knowledge is a notable exception to this

observation. As dentistry lacks a discipline-specific theoretical approach to

qualitative research, I have drawn upon the social science of sociology in order

to clarify my theoretical assumptions and establish a logical approach to

exploring my research problem.

This chapter provides an account of the theoretical issues which were

considered in the process of selecting Structuration Theory (145) as the most

appropriate research paradigm through which to approach this research

problem. In particular, the ontological and epistemological assumptions and the

research strategy underpinning this approach will be explained. I will provide an

account of the fundamental principles of Structuration Theory (145), offering a

critique of some of its more contentious aspects. Subsequently, I will introduce

a Feminist Sociology of Work (146), as an additional lens through which to view

dentists' meanings regarding their roles in referrals within PDC. This theory

provides an approach to analysing different perceptions about the value of

technical work and supportive work in organisational settings. I have selected

this theory because diversity in the nature of referrals was identified in the

literature review; this diversity suggested that referrals were perceived and

managed differently depending on whether they were made for technical work

or for additional support to help patients to cope with dental care. Finally, I

introduce Social Worlds/Arenas Theory (147), a middle-range sociological

theory which will be used during interpretation of the research data in order to

map associations between people and organisations present within PDC.

3.4.1 Philosophical assumptions

Research is underpinned by certain theoretical assumptions about what exists

in the world and how we can come to know about that which exists; these

concepts are termed ontology and epistemology, respectively (143). Within

qualitative research, it is considered appropriate that a researcher explains the

assumptions underpinning the research design, in order for the reader to have

an understanding of the perspective, or lens, through which the researcher has

viewed the social situation and social actors under investigation (139).

3.4.1.1 Ontological assumptions

Ontology considers 'questions of what exists, and what relationship exists

between the world and our human understandings and interpretations of the

world' (139: p.333). Philosophers have proposed numerous interpretations of

how the social world exists. These differ primarily in relation to whether its

existence is thought to be independent of people's constructions of that reality,

or whether it exists purely as one, or more, human constructions of reality (148).

Idealism (143), also termed relativism (139), is based upon the premise that

people's ideas, or constructions, alone, constitute multiple social realities.

Significantly, this perspective implies that it is impossible to separate the

concept of a specific phenomenon from our constructed knowledge of it (139).

Thus, the assumption is made that there is no external position from which to

view, research or explain the social world, but instead people perform social

activities from a multitude of inherently different, personalised positions. Some

of the meanings, or interpretations, of these social activities are shared by

multiple people (social actors) and thus constitute a shared social reality (143).

This presents social scientists with a dilemma, in that their own interpretations

of social actors' social realities are necessarily partial and contingent upon

assumptions of some prior shared language, culture and engagement in the

various sustaining practices of human life (149).

In contrast, realism assumes that a singular social reality exists, in some form,

independent of people's constructions (143). There is a continuum within the

realist perspective, from critical realism, in which an independent reality is

assumed to exist, albeit only partially accessible via people's social

constructions of it, to naïve, or shallow, realism which considers that an

independent reality exists and can be observed directly (139, 143). This latter

perspective is more commonly associated with the study of the natural sciences,

whilst the study of social sciences tends to be underpinned by critical realism or

idealism (139, 143).

I have adopted an ontological position based upon my interpretation of the data

obtained from the systematic review, as well as my own experience of working

within dentistry and my personal beliefs about health inequalities. All of these

sources of knowledge and belief have informed me about the inherent and, I

believe, irreconcilable diversity of people's perspectives about dentistry and

dental care. Consequently, this study is based upon idealism (relativism); that

is, the assumption that social reality only exists in the form of people's ideas

and that no single, external social reality exists, independently of such

constructions.

3.4.1.2 Epistemological assumptions

Following on from assumptions about the nature of reality, epistemology

considers what constitutes knowledge and how we can acquire knowledge (139,

143). Different epistemological assumptions perceive knowledge as being

'*absolute*', '*tentative*' or '*relative*' (143: p.24, author's emphasis), as well as

distinguishing between whether research leads to the discovery or the creation

of reality (139). Consequently, certain ontological positions are associated with

specific epistemological assumptions. It is beyond this thesis to consider all

epistemologies in detail; however, several assumptions will be described for

comparison.

Constructionism assumes that people (individually or as a society) construct

knowledge as they 'make sense of their encounters with the physical world and

with other people' (143: p.22). Social constructionism, in particular, focuses

upon how societies perceive and interpret people's actions and interactions. It

considers all social reality to be constructed by those who create it, and thus

there is no single, external social reality which can be observed objectively, but

multiple, subjective constructions of reality, known by individuals through the

meanings they assign to events. It also recognises that researchers are also

individual people, who construct their own realities through which they view the

social world and from which they cannot be detached; thus no social research

can be conducted objectively and apart from the researcher's own context.

Therefore, social constructionism is consistent with the idealist ontological

position and assumes knowledge to be relative, with 'no absolute truths' (143:

p.23). It is most appropriate and consistent to apply social constructionist

assumptions to this research study, because the systematic review data

demonstrated that authors and their participants (where present) assigned a

variety of meanings to PDC and constructed diverse realities of referral processes.

In contrast, empiricism is based upon the assumption that absolute knowledge can be discovered by people as they directly (and objectively) observe reality (149). This leads to the argument that knowledge can be proven by observational experience, without recourse to theory and that anything which cannot be observed, cannot be proven to be true (149), an assumption associated with the ontological position of shallow realism (143). This argument assumes that knowledge can be acquired with no preconceptions about what types of observations may be relevant and dismisses the creative thought and presuppositions which are inevitably employed in the natural and social sciences in order to focus scientific enquiries (149). Consequently, empiricism has been deemed 'an inadequate theory of knowledge' (149: p.9) in the natural and social sciences.

Falsificationism, which is associated with 'the hypothetical-deductive method' (150: p.131) as a research paradigm, involves testing theories with the intention of proving them to be false (151). This leads to tentative knowledge about possible alternatives, which may be a closer approximation to discovering the truth (151), and is associated with cautious realism (an ontology which questions people's ability to observe and to be objective) (143). Falsificationism was originally espoused by Popper in relation to the natural sciences, although he also applied it to the social sciences as 'methodological naturalism' (150: p.5), and proposed that sociological theories could also be tested and disproved.

3.4.2   Research strategy

Blaikie (143) describes four research strategies, or forms of logic, upon which

the search for an answer to a research question can be based: inductive,

deductive, retroductive and abductive.

3.4.2.1 Rationale for applying the Abductive Research Strategy

The Abductive Research Strategy (ARS), which was developed by Blaikie (152),

is the only strategy to focus upon meaning and context, such that:

> 'Attention is given to the meanings and interpretations, the motives and
> intentions, which people use in their daily lives (including the meanings
> and interpretations people give to their actions, other people's actions
> social situations, and natural and humanly created objects).' (152: p.423)

The ARS acknowledges that participants' constructions of the meaning of their

reality are only knowable through 'their everyday language' (143: p.10). Thus,

the researcher must be familiar with the social world of participants, in order to

understand their use of language and 'to discover the motives and reasons that

accompany social activities' (143: p.10). The researcher's role involves

conveying participants' meanings to others, using social scientists' language (62,

143).

The principles of the ARS have been advocated by the writings of numerous

authors, including Weber (153), Schütz (62, 141), Douglas (154) and Giddens

(145, 155). Weber (153) provided the concept that everyday experience

enables people to conceive of typical actions, responses and meanings.

Douglas emphasised the importance of studying social life through people's

everyday experiences, rather than through contrived 'experimental situations'

(154: p.16). Schütz (62) put forward the notion of first and second order

constructs. He described first order constructs as lay people's 'common-sense'

explanations of their actions within their social world, using their own everyday language (62: p.337). In contrast, second order constructs represented the interpretations of the social scientist, observing that social world from a slightly distanced perspective, rather than from within it, and using the language of the social sciences (62).

Later, Giddens emphasised the importance of 'mutual knowledge' (145: p.251), that is, a shared understanding between social actors and social scientists about the context in which the social activity which is being researched is taking place. Rather than observing from a completely remote or detached position, Giddens (145) argues that social scientists must conduct research from a position sufficiently close to the social actors, that they have adequate contextual knowledge in order to critique social actors' common-sense explanations of their actions. Effectively, both Schütz (62, 141) and Giddens (145) argued that sociological research requires researchers to have an in-depth understanding of the social worlds and lay language of the social actors participating in the research. Although researchers' findings and interpretations can critique social actors' explanations of events, these second order constructs must remain recognisable to participating social actors (143). Blaikie (143) emphasises that this second layer of interpretation is a fundamental feature of the ARS, as it allows researchers to abstract from individual meanings, to create 'typical meanings' (152: p.423), a process which is consistent with the concept of the 'intersubjective' (62: p.309), or shared, nature of social reality (145). Ultimately, Blaikie (143) claims that it is this second step which enables researchers to translate their understanding into further research, undertaken either in another social context or using another research strategy.

The ARS is consistent with social constructionist epistemological assumptions and the ontological perspective of idealism (143). Consequently, it recognises that social actors have already ascribed meaning to the phenomena of interest to social scientists (62), whose role is to translate those lay accounts of meaning into social scientific terms. Therefore, the ARS is appropriate to my research aim and forms the basis of the theoretical perspective adopted in this thesis. This is because the research will be based upon the meanings which dentists choose to share with me, as a researcher, about their perceptions of their professional roles, which I will interpret in the context of my own knowledge of PDC.

3.4.2.2 Alternative research strategies

In contrast, the Inductive Research Strategy is concerned with making observations, detached from meaning, and drawing general conclusions (156). Thus, it is associated with the epistemological assumptions of empiricism, described previously in section 3.4.1.2. Both Medawar (156) and Popper (150) drew attention to theorists' methodological concerns that it is not logical to make general inferences from specific observations. Medawar summarised this as follows:

> '…in the inductive scheme, discovery and justification form an integral
> act of thought… The intellectual processes that conduct us towards a
> generalization are themselves the grounds for supposing it to be true.'
> (156: p.25)

Popper argued that the concept of induction from observation is illusory, and 'that at no stage of a scientific development do we begin without something in the nature of a theory, such as a hypothesis, a prejudice or a problem… which in some way *guides* our observations' (150: p.134, author's emphasis). In addition, Blaikie (143) claimed that whilst induction could produce descriptive

conclusions, it cannot produce explanations, as this would require interpretation of meanings, which runs counter to inductive logic. Consequently, the Inductive Research Strategy is no longer considered to be suitable for researching social phenomena (143).

Furthermore, the Deductive Research Strategy begins with a general hypothesis and aims to test, or falsify, that hypothesis (151) in a specific set of circumstances (156). Thus, it is consistent with the epistemological assumptions of falsificationism, as mentioned in section 3.4.1.2 above. For Medawar (156), this approach represented an alternative which distinguished between the idea of a putative explanation and the testing of that explanation. This necessitates some prior creative thought (156), or possibly an abductive process (143), in order to generate the hypothesis. It also subsequently relies upon being able to observe and test the phenomenon in some way (151). However, participants' perceptions of meaning cannot be directly observed or tested, therefore a Deductive Research Strategy is not applicable to my research aim.

Finally, the Retroductive Research Strategy involves theorizing to generate a model of what might have caused a phenomenon to occur, in the absence of existing scientific knowledge of a causative mechanism (157). Thus, it recognises the significance of 'the disciplined scientific imagination' (158: p.17), as the starting point for studying that which cannot be observed. The various putative models thus produced might then be tested empirically (157). Initially devised by Harré (159) to create models to explain phenomena of the natural world, it was later modified for the social world (158). As the Retroductive Research Strategy is used to explain the causation, rather than understand the

meaning, of events, the retroductive approach is not relevant to this research study. In addition, the Retroductive Research Strategy is based upon realist ontological assumptions (159), which are inconsistent with the basis for my research.

3.4.3   Research paradigm

Social sciences can be explored from a number of different theoretical perspectives, or research paradigms, each of which relate to particular combinations of ontological and epistemological assumptions (143). These theoretical approaches have been developed, critiqued, revised and sometimes extended, by various philosophers. Some research paradigms, such as Positivism, are incompatible with the assumptions of idealism and social constructionism, upon which the ARS is based (143). Consequently, these paradigms will not be described here. Alternative research paradigms, which do share the same assumptions, will be summarised in section 3.4.3.6, below.

An idealist ontology and social constructionist epistemology tend to lead the researcher to reject research paradigms which claim that social sciences can be researched using the same methods as natural sciences. This is primarily based upon recognition that lay people can pre-interpret social data prior to the researcher's analysis, in a manner which does not occur in the natural sciences (141). The research paradigm which most closely meets my own ontological and epistemological assumptions, and which is also consistent with an ARS, is Structuration Theory. The development of the concept of structuration, and some related social theories, are outlined in the next section.

3.4.3.1 The concept of structuration in sociology

Some theorists have argued that the structure of society is produced entirely by 'the objective force of social structures' (160: p.8) upon people, termed Structuralism, whilst others have claimed that it is the result of the unimpeded powers of human agency, known as Subjectivism (160). However, a third theoretical position exists, in which '…the *interdependence of structure and agency in accounting for the production of social structures* is generally accepted, [and] the question is one of how they are related' (160: p.9, author's emphasis). Within sociology, the term 'structuration' (160: p.5) encompasses this third concept, whereby society develops over time, under the combined influence of individual people, or '*agents*', and broader structures 'such as institutions, [and] belief systems' (160: both p.7, author's emphasis).

Giddens's Structuration Theory is one of several such theories, which propose different explanations for how structure and agency might relate to each other (160). Both Giddens (145, 161) and Bourdieu (162), working contemporaneously but independently, asserted the 'duality' (145: p.5) of structure and agency; that is, structure and agency share an 'identity' (160: p.9) and cannot be separated. Conversely, Archer (163) and Mouzelis (164), also working independently, argued that structure and agency are independent but related concepts, defining this as 'non-identity' or 'dualism' (1160: p.9). Their theories have been described as 'post-"structurationist"' (160: p.36); for Archer (163, 165) and Mouzelis (164), it is the relationships between structure and agency which are of greatest interest. Whereas, for Giddens (145, 161) and Bourdieu (162), the inextricable association of structure and agency is of prime importance.

3.4.3.2 Giddens's Structuration Theory

The key principle of Giddens's Structuration Theory is that the structure of

society constantly modifies, and is simultaneously modified by, the actions of

people, or social 'actors' (161: p.5). In this respect, Structuration Theory draws

together two principles which tend to be used separately in other paradigms.

Firstly, Giddens adopts the concept of individual people controlling their own

actions, known as 'agency' (161: p.9), as emphasised in subjectivist

(interpretivist) approaches. Secondly, he utilises the notion that the structure of

society dictates the actions of the people within it, associated with structuralist

(and Parsonian functionalist) approaches (145). However, Giddens perceives

the concept of independently determined actions to be missing from

structuralism (145). In addition, he emphasises that people's social actions

occur, and recur, in time and space as a flowing sequence of events which can

modify society's structures (145). Giddens (145) claims that structuralist

approaches also fail to acknowledge the significance of this continual cycle.

Giddens developed the term 'duality of structure' (161: p.19), to explain this

integration of structure and agency. In Structuration Theory, he uses structure

to mean the 'rules and resources' (161: p.17) which influence how social

systems develop. He emphasises that structure, in this sense, acts not only to

constrain the actions of individuals but also to facilitate people's actions. I have

illustrated this principle in Figure 2, shown below. Moreover, Giddens argues

that it is people's actions which create and modify the structure of society:

> 'One of the main propositions of structuration theory is that the rules and
> resources drawn upon in the production and reproduction of social action
> are at the same time the means of system reproduction (the duality of
> structure).' (161: p.19)
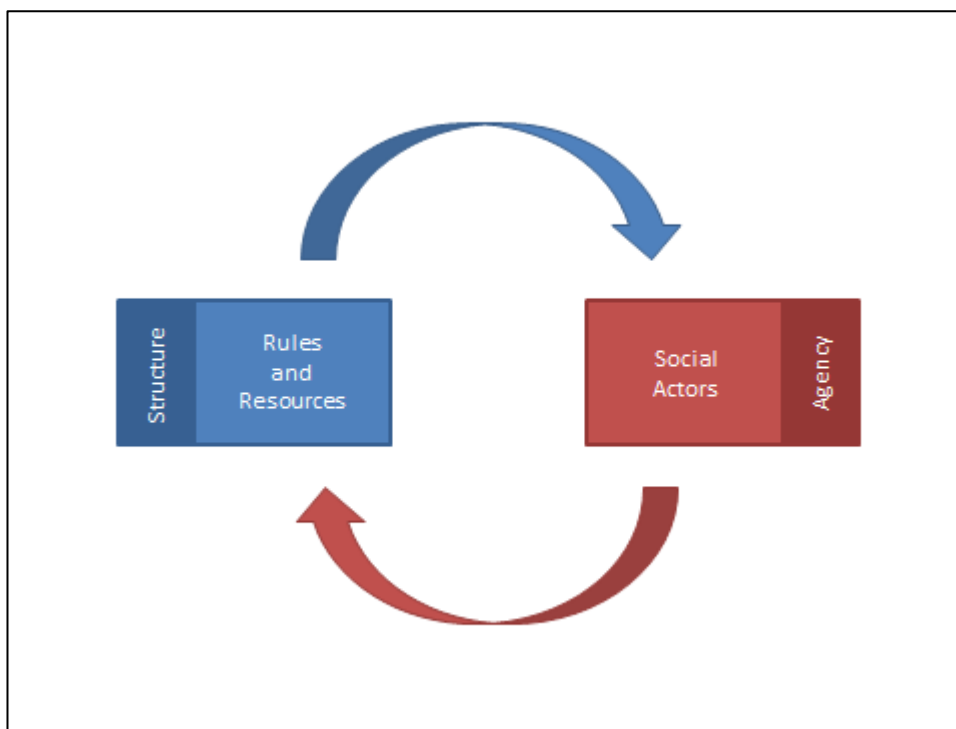
Figure 2: The principle of duality of structure. Based upon Giddens, 1984 (161)

Giddens describes this repetitive cycle of influence as 'the recursive nature of

social life' (161: p.xxiii). Society operates as a social system of interactions and

feedback, in which '[i]nstitutions are by definition the more enduring aspects of

social life' (161: p.24). He highlights the way in which repetition of regular,

everyday social actions over time, or 'routinization' (161: p.xxiii), contributes to

the structuration of society. Likewise, people associate certain locations with

particular types of social interaction; thus, over time, settings may acquire

defined purposes for individuals and social systems, such as a workplace, a

public place for meeting with friends, or a private space for resting (161). For

individuals, this contributes to their sense of social identity and perception of

control over personal actions within the social system (161). However, social

systems can overlap and the boundaries of a society may be unclear. In

addition, societies have existed, and continue to exist, in many forms; social

systems are not limited to the concept of 'nation-states' (161: p.283).

Agency, according to Giddens, 'refers not to the intentions people have in doing

things but to their capability of doing those things in the first place' (161: p.9).

He describes power as 'the means of getting things done and, as such, directly

implied in human action', whilst not being 'inherently divisive' (161: p.283).

Thus power is exerted through resources which may enable action. Giddens

(145, 161) emphasises the potential for some social actors (individually or

collectively) to exert control over others, thus suppressing others' ability to act.

However, he also argues that:

> 'Power relations are always two-way… Those in subordinate positions in
> social systems are frequently adept at converting whatever resources
> they possess into some degree of control over the conditions of
> reproduction of those social systems.' (145: p.6)

Giddens (161) considers social actors to have conscious knowledge of much of

their social activity, an ability to rationalise their choice of action and sufficient

awareness of the social system to have an understanding of some of the

consequences of their actions. Therefore, much of people's social activity is

intentional and can be explained by social actors. However, as a result of the

routinisation of everyday life, Giddens (161) proposes that most routine activity

is not consciously motivated. Although the actions of individuals contribute to

the endless series of interactions which influence the rules and resources of a

social system, the distant consequences of those actions for society may well

be uncoordinated and unexpected:

> '…the outcome of a series of rational actions, undertaken separately by
> individual actors, may be irrational for all of them. "Perverse effects" are
> only one type of unintended consequences, although it is no doubt true
> that situations where they occur are of particular interest.' (161: p.13-14)

Giddens considers that a major purpose of social research is to explore people's conscious social actions, as well as considering both unconscious actions and 'unacknowledged conditions/unintended consequences of action', particularly in relation to reproducing social systems (161: p.282).

3.4.3.3 Other theories relating to structuration

Bourdieu's approach to structuration shares with Giddens's Structuration Theory its basic tenet that structure and agency are inseparable (160). Bourdieu's work centres upon social stratification, or social class, and considers the way in which people develop an understanding of what is, and is not, deemed socially acceptable amongst their peers within society (162). He defines 'habitus' (162: p.85) as the idea of developing an understanding of position within society through the practice of everyday life. Bourdieu considers structuration in relation to the distribution of power in a hierarchical society, illustrating his theory with extensive examples from his own ethnographic research in Algeria (160, 162). However, Parker (160) argues that this approach is not as useful for analysing practices which take place within a hierarchically flat sector of society, such as a single professional occupation.

Whilst Mouzelis (164) takes the alternative view that structure and agency are separate, he interprets this to form a spectrum of separation. Specifically, for Mouzelis, when structures are perceived to be rules, underpinned by language, they tend to be used by social actors in a practical, 'taken-for-granted manner' (164: p.139) in their everyday lives. In this context, where such rules are almost hidden from social actors by their proximity and normality, Mouzelis acknowledges that structure and agency are inseparable and he concurs with both Giddens and Bourdieu: 'rules…are 100 per cent the medium and outcome

of action' (164: p.139). Conversely, when structures take the form of more tangible resources, and social actors are positioned at a distance from those resources, Mouzelis (164) argues that actors are aware of their existence and are capable of questioning their purpose. At this end of the spectrum, Mouzelis points out that when social actors have 'theoretical knowledge' (164: p.139) of such structures, which can be viewed more objectively from a distance, they can begin to analyse, critique and modify those structures in a very different way. In this situation, structure and agency are distinct entities, according to Mouzelis (164).

Finally, Archer's version of structuration derives from her view that merging the concepts of structure and agency is always unnecessary and inaccurate (160, 163, 165). By focusing upon the interaction between structure and agency, the difference between Archer's 'Morphogenesis' (165: p.458) and Giddens's structuration, initially appears to be one of analysis, rather than ontology (160). However, there are also ontological differences. Parker (160) and Stones (166) have suggested that Archer has developed a theory which is based upon realist ontological assumptions. Effectively, Archer proposes the development of a subtle version of Structuralism, in which social actors' influence upon the structures of society is acknowledged by considering the cyclical interactions between agency and structure (160, 167). Thus, for exploring the concept of referrals within PDC, Archer's 'morphogenetic approach' (165: p.456) may be less appropriate than Giddens's Structuration Theory, both from an analytical and ontological perspective.

3.4.3.4 Critiques of Structuration Theory

Giddens's Structuration Theory has been the subject of extensive debate and discussion between theorists (160, 163-170). Whilst it is not possible to elaborate all of these debates in this thesis, specific mention is given to several critics' perspectives, which are particularly relevant to my research aim and my rationale for the use of Structuration Theory.

A general criticism, reiterated even by Giddens's more sympathetic critics (166, 168, 171-173), is that his written explanations and definitions can be vague and in need of further explication. This is discussed by Thompson (171), who highlights 'the looseness of Giddens's conception of structure' and, in particular, 'the vagueness of the term "rule"' (171: both p.64). Giddens (161) does consider the diverse forms which rules can take, from regulations, to routines, to formulae. However, Giddens's specification of rules as formulae does little to convey his overarching conception of 'rules as generalizable procedures implemented in every kind of social practice – shorthand summaries, as it were, of what actors know about their world and about how to act within it' (171: p.64). Nor does it overtly accommodate Giddens's recognition that 'some kinds or aspects of rules, are much more important than others' (171: p.64-65).

Consequently, argues Thompson (171), although our understanding of what Giddens means by rules is intuitive, we cannot utilise this understanding on its own. It is also necessary to differentiate between overarching social structures which constrain or define which rules, or types of rules, can apply in a given social context, for example, in businesses, as opposed to other types of organisation (171). Thompson suggests that 'the recognition of different levels of structural analysis places intolerable strain on [Giddens's] original conception of structure' (171: p.71). However, Stones (166) provides a counter-argument

that, when using Structuration Theory to inform analysis, the potential problems which this differentiation of structural levels may present can be overcome. Stones (166) recommends that, when using Structuration Theory in analysis, the researcher provides the reader with context, which elaborates the social structure of the research setting, so that the rules or norms which might be drawn upon by social actors in that setting are made clear. I have adopted this approach by detailing the research setting and its norms in Chapters 1 and 2.

Archer (163, 165) and Mouzelis (164) have criticised both Giddens and Bourdieu for insisting upon the identity of structure and agency, rather than disentangling the two concepts. However, Mouzelis (164) does accept that the concepts of structure and agency converge when the language-based rules of everyday practices are assumed by social actors. In contrast, Archer (163, 165) has been a longstanding and severe critic of Structuration Theory, arguing that structure and agency are always distinct. Stones (166) argues that Mouzelis's idea of a continuum is one which is consistent with Giddens's claim that social actors have knowledge of their actions, because they must act in the moment, even if they have a critical awareness of rules and resources. Thus, claims Stones (166), Mouzelis's critique offers a useful development, rather than a contradiction, to Structuration Theory. In the context of this research, I consider the concept of referral to represent a language-based rule which is used in the everyday social actions of dentists. It appears, based upon my systematic review findings, that dentists themselves tend not to question the existence of the concept of referrals, although the academic authors of several articles had adopted a more reflexive stance in critiquing the way in which referral systems operate in practice. Thus, for the purpose of my research with dentists,

Mouzelis's concerns about potential distance between agency and structure are unlikely to be problematic and his modification of the theory is unnecessary.

A second criticism from Archer relates to temporality. She argues that there is continuous interaction between structures and agents over time (160, 163, 165), rather than social life being produced and reproduced through a series of discrete acts, or 'moments' (145: p.5) of structuration, as described by Giddens. Archer (163, 165) claims that Giddens's approach means that his social actors take no account of past or future events, as each momentary development takes place. This argument does not reflect Giddens's (145, 161) extensive discussions about the cyclical nature of time, at a societal and individual level, its relevance to structuration in terms of geographical distance and specific location, and the contributory effect time has upon social actors' knowledge of structures through prior instances of action. As Stones (166) points out:

> '…for an agent to be able to draw on the internal structures - that is, on their internal perceptions of the external conditions - … then these structures must… pre-exist the moment in which the agent draws upon them…' (166: p.54)

Although Giddens is somewhat vague in numerous of his definitions, including the role of time, 'it is only on a highly selective and doggedly unsympathetic reading that one could believe that Giddens means structure to have no 'pre-existent or causally influential' role' (166: p.54), citing Archer (167: p.97). Indeed, the literature relating to referrals within PDC indicates that referrals are essentially episodic, that is, they are generated as acts, or instances of action of a social role, which contribute to an actor's continuous social action, rather than occurring continuously themselves. In this respect, and in addition to the ontological distance between Archer's and Giddens's theories, Structuration Theory represents a more suitable approach to this research study.

Murgatroyd argued that Giddens, like many sociologists, failed to consider

gender as a dimension of social life, leading to 'the omission of spheres of

social activity particularly associated with women' (174: p.147) from

Structuration Theory, notably 'people-producing work' (174: p.156) and its place

in the labour market, as distinct from the domestic setting. Murgatroyd was as

much concerned about the omission of 'the areas of social activity in which

women participate more [than men]' (174: p.148) as she was about Giddens's

failure to overtly identify women as social actors. She claimed that 'continued

ignoring of this dimension of social systems in mainstream social theory is

inexcusable' (174: p.148). Drawing parallels with traditional perceptions of work

as 'the production… of material goods' (174: p.155), Murgatroyd described

people-producing work and illustrated how it may be carried out in various

settings:

> 'Those who nurture, procreate, feed, educate, give physical care
> (medical or otherwise) or manipulate others psychologically in such a
> way as to increase the amount or ameliorate the quality of human energy
> and potential labour-power by directly manipulating people are doing
> people-producing work. This applies regardless of whether and how that
> potential is ultimately used.' (174: p.156)

In response, Giddens (175) claimed that the basic principles of Structuration

Theory apply equally to men and women and thus apply to the whole of society.

Paradoxically, with regard to perceived masculine and feminine characteristics,

Giddens stated that 'gender is constructed and reconstructed in the flow of

interaction in day-to-day social life' (175: p.285), a statement which appears to

recognise a potential for inequality. He has also acknowledged that the

perceived separation of paid work and domesticity 'is fundamentally inadequate'

(175: p.282). Taking into account the potential for gendered social actions to

occur in any social system, and the need to consider their possible

consequences in relation to this particular research study, I perceived the

omission of a discussion of gendered social actions from Structuration Theory

to be a potential issue. I resolved this by adopting a Feminist Sociology of Work,

described in section 3.4.4.1, below, as an additional theoretical perspective.

In considering the relevance of Structuration Theory to the conduct of social

research in general, Gregson (176) claimed that the theory is irrelevant to the

design or analysis of empirical research, owing to its abstract, ontologically-

focused nature. She argued that, by definition, social theories should 'illuminate

and explain the concrete processes of social life' (176: p.237) and that they

should also have predictive potential. Gregson suggested that, although

Giddens has offered guidelines for researchers, they are insufficiently specific to

inform empirical research and 'the most these guidelines allow currently is… for

social theorists to see things of ontological interest in empirical research' (176:

p.241). Giddens's response indicated that attempting to create close parallels

between theoretical ideas and empirical research could constrain both avenues

of thought:

> 'The 'how?' and 'why?' questions which social research answers are too
> variegated to be subsumed within so neat a scheme.' (175: p.295)

Instead, argued Giddens, 'the theory should be utilized only in a selective way

in empirical work and should be seen more as a sensitizing device than as

providing detailed guidelines for research procedure' (175: p.294). It is in this

sense that I have applied Structuration Theory in the analysis of my research

study, complementing it with additional theoretical approaches where

appropriate. These approaches are described in sections 3.4.4.1 and 3.4.4.2,

below.

3.4.3.5 Rationale for the use of Structuration Theory

Giddens's Structuration Theory has been critiqued by many sociologists, some of whom have dismissed it (160, 163, 165), whilst most others have sought to provide clarification and refinement of its central concepts (164, 166, 169, 170). As a research paradigm, Structuration Theory has specific relevance to this research problem, because the contextual information and academic literature relating to PDC, as described in Chapters 1 and 2, suggest that dentists have considerable agency to influence the many rules and resources of this particular social system. The concept of referrals appears to be operationalised as an ongoing series of discrete episodes, or instances, of social action, rather than the continual process described by Archer (163, 165). At the moment of each such episode, a referral is both a routinised social action initiated by a dentist (in conjunction with a patient) and the 'instantiation' (161: p.16) of social structure in the sense of drawing upon a rule within the social system of PDC.

Regarding the power of social actors, this research study is more consistent with Giddens's theory than Bourdieu's concept of 'habitus' (162: p.85), which relates the concept of power to the broad social stratification known as social class. Both the contextual information and the academic literature indicate that the hierarchy between dentists within PDC appears to be relatively flat, particularly within general dental practices, where dentists tend to occupy one of only two positions (associate or principal), once they have completed training. Bourdieu's approach is considered to be of limited relevance in situations which are confined to '[n]on-hierarchized occupational specialization' (160: p.48). According to the systematic review findings, dentists appear to have considerable autonomy within their professional roles. Consequently,

Giddens's stance regarding power appears to be more applicable in the context of the social system of PDC:

> 'Power within social systems which enjoy some continuity over time and space presumes regularized relations of autonomy and dependence between actors or collectivities in contexts of social interaction.' (161: p.16)

In summary, the policy developments and attempts to monitor and improve PDC, described in Chapters 1 and 2, can be viewed as a historical narrative. Through this lens, they show how the actions of individuals within a routinised system can combine to produce unexpected outcomes and '[p]erverse effects' (161: p.13), whilst maintaining the overall structure of the system. The research paradigm of Structuration Theory offers an approach to exploring my research aim which enables the influential nature of the people and the enduring institutions of the PDC system to be given due consideration, alongside other, more transient social actions, rules and resources which may be occurring in this setting.

3.4.3.6 Alternative research paradigms

In addition to Structuration Theory, three other research paradigms can be considered to be compatible with the ARS: Interpretivism, Critical Theory, and Feminism (143). Each of these paradigms will be summarised and their relevance considered, below.

3.4.3.6.1 Interpretivism

The classical research paradigm of Interpretivism was developed from the paradigms of Hermeneutics and Phenomenology by philosophers including Weber (153), Schütz (62, 141, 177) and Winch (178). It is based upon the principle that the study of natural and social sciences is inherently completely

different, because the people who are the focus of social scientists' enquiries have 'pre-interpreted this world which they experience as the reality of their daily lives' prior to any such enquiries (141: p.242, 178). The focus of Interpretivism, as elaborated by Weber (153), is upon understanding social action, specifically social actors' conscious, or intentional, actions towards other people, through the meanings given to those actions by social actors themselves, rather than the social scientist, 'insofar as they are accessible to his observation and open to his interpretation' (62: p.339,141). To define this particular form of understanding, Weber used the term 'Verstehen' (153: p.87). By action, Weber refers to 'all human behaviour when and in so far as the acting individual attaches a subjective meaning to it' (153: p.88). Therefore, Interpretivism does not seek to explain unconscious actions, nor the unintended consequences of social action (143). The systematic review indicated that there are many unintended consequences in the social world of PDC. As Interpretivism cannot assist in developing an understanding of these issues, I concluded it was not the most suitable research paradigm on which to base my research study.

3.4.3.6.2 Critical Theory

Critical Theory is a contemporary research paradigm, which offers a critique of society itself, with a focus upon the 'domination' (179: p.12) of individual people's aspirations, at every level, by the culture and beliefs associated with capitalism, in particular (180). Perceiving capitalism to be based upon exploitation, Horkheimer and Adorno (181) sought to empower individuals through Critical Theory, by enabling them to understand the state of their society and overcome false consciousness. Habermas's (182) development of Critical Theory adopted an emancipatory approach, aiming 'to further the self-

understanding of social groups capable of transforming society' (180: p.250).

Later developments of Critical Theory, by Fay (183), include multiple theories, many of which focus upon enlightening people through education and taking action to change society. However, these theoretical objectives lie beyond the scope of my research project.

3.4.3.6.3 Feminism

As a research paradigm, Feminism comprises a range of perspectives, a common feature of which is a strong critique of 'androcentrism' (184: p.11), or the 'malestream' (174: p.147) approach to the study of natural and social sciences which has dominated research for centuries. Feminist theorists argue that the dominant masculine discourse has systematically oppressed women, and feminine perspectives, whilst claiming to generate value-free knowledge (146, 184, 185). This may occur by various means, such as emphasising potentially artificial differences between male and female attributes (both physical and psychological) when planning and analysing research, or down-playing women's perspectives within society (184). In the natural sciences, this may be seen in the medicalisation of the female body, and reproduction in particular, through scientific study (185). Regarding social research, Feminist theorists are concerned that research tends to obscure the subtle, informal ways in which women often influence culture and neglects to recognise the significance of relational work and emotion in society (146, 184). As explained in section 3.4.3.4 above, Giddens's Structuration Theory omits to actively consider the implications of potentially gendered social actions for society (174). Therefore, although Feminism is not the primary research paradigm employed in this study, I have considered its potential relevance to this research, in terms

of overcoming the analytical limitations of Structuration Theory in this respect, details of which are provided in the next section.

3.4.4   Middle range theories

Middle range theories, as defined by Merton (186), provide a more specific theoretical basis on which to explore social research topics than that which is provided by a broader research paradigm. In this section, I will introduce two additional theories to guide my analysis: a Feminist Sociology of Work and Strauss's Social Worlds/Arenas Theory (SW/AT). Firstly, a Feminist Sociology of Work provides an approach to analysing different perceptions about the value of technical work and supportive work in organisational settings. Secondly, Strauss's SW/AT is a middle range theory of the sociology of organisations, which is consistent with the research paradigm of Structuration Theory (187). This theory becomes relevant when considering PDC as a setting, or social world, as described in Chapter 1, and the autonomy of dentists, as social actors within a profession, as identified in the systematic review, in Chapter 2.

3.4.4.1 A Feminist Sociology of Work

A Feminist perspective on the Sociology of Work, like Structuration Theory, is consistent with a poststructuralist perspective in that it recognises that the factors which influence society extend beyond the formal structures of that society (146). It considers the significance of the concepts of public and private spheres of human life, as described by Harding (184). Harding (184) proposed that these are socially constructed concepts, through which 'men and masculinity are strongly associated with the public, cultural role and women and femininity with the private, natural role' (146: p.26). Figure 3 provides a comparison of the characteristics which are attributed to the public and private

spheres. Fletcher (146) argued that this constructed division leads people to unconsciously associate supposedly masculine characteristics with the public sphere of paid work, whilst simultaneously perceiving seemingly feminine characteristics to be 'inappropriate' (146: p.29) in the context of paid work, but congruent with unpaid domestic labour in the private sphere. Consequently, Fletcher claimed, masculine characteristics are valued, encouraged and rewarded in paid work, whereas 'private-sphere attributes, such as emotionality, caring, and community, are often invisible in traditional definitions of work and competence in the public sphere' (146: p.29).

Public Sphere	Private Sphere
Work is something you have to do	Work is something you want to do
Money is the motivator	Love is the motivator
Work is paid	Work is unpaid
Rationality is reified	Emotionality reified
Abstract	Concrete, situated
Time span defined	Time span ambiguous
Output: marketable goods, services, money	Output: people, social relations, creation of community, attitudes, values, management of tension
Context of differential reward leads to focus on individuality	Context of creating a collective leads to a focus on community
Skills needed are taught; work is considered complex	Skills needed are thought to be innate; work is not considered complex.

Figure 3: Public and Private Spheres. Reproduced from Fletcher, 2001 (146: p.29)

3.4.4.1.1   Rationale for the use of a Feminist Sociology of Work

It is clear from the demographic information provided in section 1.3 that differences have existed in the distribution of male and female dentists between different roles in PDC (42). Whilst the systematic review did not overtly raise issues relating to gender (or any other potential form of inequality), I recognise that, from a Feminist perspective, researchers should be aware that the design

and analysis of most existing research will tend to obscure or distort the significance of gender.

The systematic review findings highlighted that, within PDC, referrals which were made for support relating to patients' coping skills, emotions (specifically, anxiety) and social context were viewed and managed differently by dentists, and subsequently followed different referral pathways, when compared with referrals made for technically difficult dental procedures. Murgatroyd (174), Fletcher (146) and Abbott *et al.* (185), amongst others, have indicated that supportive, 'people-producing work' (174: p.156) and technical work are perceived to be gendered activities which are associated with women and men, respectively. Consequently, I have elected to interpret my research findings through the lens of a Feminist Sociology of Work (146), as it provides a perspective from which to analyse social actions which may be perceived by society to be gendered in nature, which is lacking in Structuration Theory.

3.4.4.2 Social Worlds/Arenas Theory

Anselm Strauss developed SW/AT as a means to improve 'understanding the processes of social change' (147: p.12) by studying how groups of people develop and function within society. He drew upon the work of other theorists from the Chicago school of sociology to develop their initial concepts of 'social worlds' as informal cultural groups engaged in collective action (147: p.119, 187, 188). Strauss conceived of 'social worlds as groups with shared commitments to certain activities, sharing resources of many kinds to achieve their goals, and building shared ideologies about how to go about their business' (187: p.131). Consequently, Strauss's social worlds are not confined to particular locations and are not necessarily equivalent to specific organisations, although they may

be oriented around an organisation of some sort (188). Rather, they are

defined by the engagement of social actors with particular intentions which are

communicated by their discussions and actions; these actions generate a

shared purpose which is deemed to be 'authentic' within a social world (147:

p.123).

Social worlds are, therefore, ever-changing and diverse (147); the concept is

consistent with Structuration Theory, in that the structure of a social world is

constantly altered by the individuals who engage with it (187). Social actors

may be connected with a social world through a sense of belonging, through

passive or active engagement with the communications and activities of that

world, or through informal or formal organisations (147, 187). The shaping of a

social world may appear more coordinated than the structuration of Giddens's

broader social systems, as a result of the shared rationale behind the routine

actions of members of the social world, as well as their motivation to undertake

conscious activity, with anticipated consequences.

The concept of social worlds can be applied to occupations but is equally

relevant to education, recreation, religion, politics or the arts (147). In addition,

social worlds comprise numerous 'sub-worlds' of distinct, but connected,

collectives of social actors (147: p.122). Social worlds and sub-worlds usually

interact with others, often over contested issues, and at a relatively local level

(147, 188). Multiple social worlds aggregate into broad social 'arenas' which, in

the context of modern nation-states, usually 'involve political activity but not

necessarily legislative bodies and courts of law' (147: p.124). Thus, whilst

SW/AT inevitably leads to the study of the social actions of people in collective

groups, rather than as individuals, it enables the researcher to consider such

collectives at any societal level from a very localised viewpoint, to an extremely broad perspective (147).

3.4.4.2.1 Applications of Social Worlds/Arenas Theory

Tolbert and Zucker acknowledged that '[t]he study of organizations has had a relatively short history within sociology' (189: p.176) and that this has focused predominantly upon a functionalist approach to analysis, with a consequent emphasis upon the significance of the structural elements of organisations. Clarke (187) highlighted that, unlike many other organisational theories, which tend to adopt a positivist research paradigm, SW/AT takes a sociological approach, underpinned by a social constructionist epistemology. SW/AT recognises the influence of people as social actors and shows 'how people organize themselves, and … how some people attempt to organize others' (187: p.119). Thus, not only does this theory acknowledge the impact of people through collective social action, in addition to that of organisational conditions and structure, but it proposes that people's actions can define and modify such conditions and structures (147, 187). It enables research relating to particular groups of people to focus at any level from the smallest unit of analysis to an entire society, whilst maintaining attention upon the context of social groups (147).

Clarke (190) also demonstrated how the concepts developed in SW/AT can be employed in mapping the collective social actors, interactions and organisations present within a research setting, as part of the analytical process. She showed how this mapping concept could be used to illustrate complex inter-relationships within healthcare settings, with two examples from the United States of America, which depicted the arenas of cardiovascular disease and nursing care within

hospitals (190). The systematic review findings suggested that similarly elaborate, multi-level relationships could be anticipated within the UK PDC arena, and that a mapping approach may assist with analysing these interactions.

Within UK healthcare, SW/AT has been applied to the study of social worlds within the 'conceptual landscape' of primary care medicine (188: p.697). Tovey and Adams (188) suggest that most strategic challenges within primary care medicine relate to the objectives of primary healthcare, such as the legitimacy of diagnoses and treatments, or the organisation of primary healthcare services, especially organisational change. In particular, they identified the issue of competing interests, between sub-worlds of healthcare professionals around the allocation of roles and resources within and between professional groups (188). Dominant sub-worlds displayed 'in-world resistance' to change, through power struggles around the legitimacy of new professions and changing role boundaries (188: p.702). Power struggles were also apparent in my systematic review, most frequently between GDPs and community dentists, with many documents being focused upon efforts to change professional responsibilities. These findings suggested that SW/AT would provide a useful approach to analysing primary data relating to PDC.

3.4.4.2.2   Rationale for the use of Social Worlds/Arenas Theory

Tovey and Adams (188) and Clarke (190) have shown the potential for SW/AT to critique social action by professionals and patients within primary and secondary healthcare systems, whilst maintaining the complexities of the context. My systematic review indicated that groups of dentists held diverse values and aimed to achieve different objectives within PDC, suggesting that

multiple worlds or sub-worlds may exist. It is, therefore, reasonable to suppose that social action may occur within PDC in a similar manner to other healthcare systems and that this can be studied in a similar way. In this study, I propose to use SW/AT as an approach to mapping the social worlds, interactions, professional roles and boundaries which are currently perceived to exist within PDC, as identified through primary data collection and analysis.

3.5   Summary

In this chapter, I have presented my research aim and objectives, followed by the ontological and epistemological assumptions of idealism and social constructionism, respectively, which underpin the theoretical perspective adopted in this thesis. I have described and justified my selection of the ARS and the research paradigm of Structuration Theory. I have adopted this research strategy and paradigm as the most appropriate approach for exploring a research problem which relates to the meanings which dentists, as social actors, ascribe to their roles within the social system of PDC in England. In addition, I have selected a Feminist Sociology of Work as a lens through which to view dentists' meanings regarding the management of referrals made for additional support to help patients to cope with dental care, as distinct from referrals made for technical work. Finally, I have introduced SW/AT as a specific sociological approach to the study of human activity in the context of organisations such as healthcare systems. This approach lends itself to the analysis and visual mapping of contested professional roles and changing boundaries within healthcare settings. Details of the specific methods used to explore the research aim and objectives will be described in Chapter 4.

Chapter 4   Interview Study Methodology and Methods

4.1   Introduction

In Chapter 3, I defined the research aim and objectives for this research study and provided an explanation of the theoretical basis for the thesis. The research paradigm of Structuration Theory and the middle-range theories of a Feminist Sociology of Work and SW/AT were introduced. In this chapter, I will explain the methodological decisions leading to the selection of the specific methods of data collection and analysis for exploring the research objectives. Justification is provided for using semi-structured interviews and thematic analysis in conducting this research study. This chapter also provides details of the ethical considerations and practical aspects of participant selection, recruitment, data collection and data analysis for the study. In parallel, this chapter offers a reflexive commentary about my potential impact, as a researcher, upon the research process.

4.2   Research aims and objectives

As described in Chapter 3, the aim of this study was to explore dentists' perceptions of their professional roles within PDC in England. The roles and the referral decisions of GDPs and community dentists were of particular interest, as elaborated in the research objectives:

- What does it mean to be a GDP?

- What does it mean to be a community dentist?

- What are dentists' perceptions of the boundaries of these roles?

- How do these meanings, perceptions and expectations relate to the experience of making and receiving referrals, within PDC?

4.3   Rationale for selection of a qualitative approach to research study

The research aim and objectives focused upon the meanings people ascribed to their individual and collective purpose and social actions within their social world, in the arena of PDC in England. In order to understand the meanings which people constructed to explain their actions and decisions, it was necessary to select an approach which enabled people to convey those socially constructed meanings through language. It was also essential for the research to be designed to take account of participants' context within this diverse arena when collecting data, and to recognise the active role of myself as a researcher, in acknowledging that context when interpreting the data.

Qualitative research is designed to study participants in the context of their social world, often through a form of language and specifically through participants' own words, with the aim of deriving a rich, descriptive interpretation of that social world (148, 191). Therefore, qualitative research, in its many and various forms, is used extensively in the social sciences, in which it is recognised and valued that research is inherently subjective and that the researcher's own character and context, or 'humanness' (139: p.36), forms part of the research method. In contrast, quantitative research is intended to numerically quantify data in order to distil information gathered or observed in isolation, or outside its usual context, and is often used to test a hypothesis. Quantitative methods are therefore primarily associated with the natural sciences (148, 191). Consequently, it was more appropriate to use qualitative research methods, rather than quantitative methods, to study this research aim.

4.3.1   Demonstrating quality in qualitative research

4.3.1.1 Transferability

In qualitative research, relevance of context is overtly acknowledged and it is recognised that the researcher will have an impact upon participants (139, 148, 191). Therefore, the context of the research setting, the nature of the participants and the data collection methods and the role of the researcher must be made explicit, in order that the reader can take these factors into account when making their own interpretation of the relevance of the research (139, 191). In qualitative research, relevance is often described in terms of 'transferability' (139: p.282), one of several criteria for quality adapted by Lincoln and Guba (192) to define the extent to which the findings of qualitative research could be related to people in other settings (191). This can only be established by presenting details of the context of the original research, in order for readers to be able to assess its relevance elsewhere (139).

4.3.1.2 Guidelines for quality in qualitative research

The diversity of qualitative research methods and their underlying theoretical assumptions results in some debate as to how constructs of quality, such as transferability, can be demonstrated in qualitative research (191). Various guidelines have been developed, against which qualitative studies can be compared, of which some are specific to a particular method, whilst others are intended to be relevant to all types of qualitative research (139). After extensive discussion with other qualitative researchers, Elliott *et al.* (191) compiled recommendations for demonstrating quality in conducting and publishing qualitative research. These recommendations, listed in Figure 4, below, include stating researchers' theoretical assumptions, describing methods in detail, providing examples from the data and checking that findings are credible by

involving additional researchers in the analysis (139, 191). Although Elliott *et al.*

intended for their suggestions to be considered as 'tentative' (191: p.225),

rather than 'rigid' (191: p.224), it has also been argued that it is unrealistic to

judge all types of qualitative research by the same guidelines (139). Indeed

some authors argue that it is more appropriate 'simply to tell the story of the

project and explain the research design decisions made' (193: p.308).

A. Publishability Guidelines Shared by Both Qualitative and Quantitative Approaches
1. Explicit scientific context and purpose
2. Appropriate methods
3. Respect for participants
4. Specification of methods
5. Appropriate discussion
6. Clarity of presentation
7. Contribution to knowledge
B. Publishability Guidelines Especially Pertinent to Qualitative Research
1. Owning one's perspective
2. Situating the sample
3. Grounding in examples
4. Providing credibility checks
5. Coherence
6. Accomplishing general vs. specific research tasks
7. Resonating with readers

Figure 4: Evolving Guidelines for Publication of Qualitative Research Studies in Psychology and Related Fields. Reproduced from Elliott *et al.*, 1999 (191: p.220)

In this thesis, I have adopted the recommendations of Elliott *et al.* (191)

wherever possible and relevant to my research, which lies at the intersection

between the disciplines of dentistry and sociology. They drew parallels

between aspects of quality in presenting both quantitative and qualitative

research. In this thesis, I have sought to provide an account of my qualitative

research which does not alienate readers who are more familiar with one or

other of these two disciplines.

I have attempted to demonstrate good quality research by providing context and

purpose for the research aim in Chapters 1 to 3 and explaining the theoretical

perspective of the study in Chapter 3. I share with readers my perspective as a

researcher, especially in Chapters 1, 4 and 6. In this chapter, I will justify my

choice of appropriate research methods and describe my research process in

detail. In this respect, I have also followed Barbour's general approach to

conveying the context of the study, my researcher context and my methodology.

In addition, I also referred to Braun and Clarke's (139) 15-point checklist of

criteria for good thematic analysis, as a starting point for planning the

presentation of my research findings in Chapters 5 and 6.

4.3.2 Reflexivity in qualitative research

Reflexivity is the process of acknowledging and recording subjectivity in

qualitative research, making explicit the influence of the researcher at all stages

of the research (139, 140). Wilkinson (194) was cited by Gough (140) as

having identified 'three distinct but interrelated forms of reflexivity: *personal*,

functional and *disciplinary*' (140: p.23, author's emphasis).   Personal reflexivity

enables the researcher to consider the possible reasons underlying their choice

of research question (140, 195). This, in turn, allows the researcher to identify,

and focus their enquiries upon, a '"true" question…the expression of a real and

living doubt' (195: p.41). By sharing the personal context of the development of

the research aims, personal reflexivity also enlightens the reader regarding the

researcher's individual perspective (139, 140).

Functional reflexivity 'relates to one's role as a researcher and the effects this

might have on the research process' (140: p.23). The effects of the researcher

(in addition to devising the research question) may include methodological

decisions about how to conduct data collection and analysis, the nature of the data which is subsequently acquired and the emphasis of the interpretation of that data (139, 140). Furthermore, the researcher inevitably has an influential effect upon the participants, which will be shaped by perceived power relations, whether or not the relationship appears to benefit the researcher (140). Finally, through disciplinary reflexivity, the researcher situates their research in the context of the methodological conventions of their particular discipline, and offers a critique of those conventions and a discussion of the new knowledge which the research may contribute to the discipline (140).

My personal reflections of my potential impact as a researcher are reported throughout this chapter, as the research methods are described. In addition, I have offered functional reflexivity by providing a rationale and critique of the methods selected. These reflections follow on from Chapter 1, in which I provided an account of my personal experience of the arena of PDC and my consequent involvement in the creation of the research aim and objectives. Whilst I endeavour to report the research findings from the participants' perspectives in Chapter 5, I continue to reflect upon my own impact upon the research process and my interpretation of the findings, in Appendix 37 and 38, to which I refer in Chapter 6. Also in Chapter 6, I consider the contribution of this research to my learning about myself as a clinician-researcher, as well as its contribution to the discipline of dentistry, through Appendices 39 and 40, respectively.

4.3.2.1 Researcher impact upon the research methods

In this research project, I considered myself to be researching in the role of an 'insider-learner' (143: p.11), a role which is explained further in sections 4.6.9 of

this chapter. That is, I was researching from inside the dental profession, and as such, I was inevitably bringing experience, perceptions and assumptions from my clinical role to my research with other dentists. In addition to its bearing upon my research aim, this would inevitably impact upon recruitment, participation, data collection and data analysis. However, I aimed to learn and create knowledge from the experiences and interpretations of others (specifically, dentists participating in this interview study), rather than drawing upon existing research or personal expertise.

4.3.3   Ethical considerations

This study was designed to involve healthcare professionals as participants, generating primary data. This raised a series of ethical considerations in relation to the participants themselves, their patients and myself as a researcher. The ethical issues which were considered and managed are described at the relevant stages of the research process, detailed below. These issues included:

- The confidentiality and anonymity of participants and their patients;

- Potential for disclosure of previously unreported unprofessional issues;

- Potential for participant distress during interviews;

- Potential for researcher distress;

- Researcher safety around face-to-face interviews.

Consequently, the study required ethical approval, which was sought, and obtained, from the Research Ethics Committee of the Faculty of Health and Human Sciences, Plymouth University. Appendix 20 presents the letter of approval from the Chair of the Research Ethics Committee.

4.4   Rationale for selection of study population and setting

4.4.1   Study population defined by the primary dental care setting

The systematic review indicated ambiguity and conflict between the roles of

GDPs and community dentists within PDC in the UK. Conversely, there

appeared to be more of a consensus regarding the roles of dentists providing

specialist services in technical dental specialties, such as oral surgery and

orthodontics, within PDC. Consequently, the research aim pertained

specifically to dentists working in general dental practice and CDSs, rather than

dentists providing secondary care outreach or working in specialist practices in

the UK. Therefore, the study population was limited to dentists working as

GDPs and community dentists, including dentists working in practices or

services which were taking part in pilot schemes, such as personal dental

services. Subsequently, in this thesis, I will refer to the term 'primary dental

care' (PDC) as relating to all general dental practices and CDSs, including

personal dental services, and all such organisations known by any other name.

4.4.2   Study population defined by the wider geographic and political setting

The literature highlighted the influence of numerous policy decisions upon the

working practices and intentions of dentists, and therefore it was considered

likely that participating dentists would draw upon current policy context and past

experiences of previous policies during their career, when constructing

accounts of their professional roles. However, as indicated by the historical

account in Chapter 1, progressive and divergent policy developments across in

the four countries of the UK have created distinct differences in context for PDC

provision between the devolved nations and England. Analysing the impact of

different policy contexts occurring simultaneously across the UK, in addition to

analysing the influence of policy change over participants' working lifetimes,

would add an additional layer of complexity to the study. In order to avoid

compromising the depth of analysis of the specific research aim, the study

population was limited to dentists currently working in the PDC setting in

England, rather than the UK as a whole. However, in order to consider the

transferability of the findings, it was a priority to involve participants from across

all areas of England, rather than one region.

4.4.3   Study population defined by personal characteristics and experience

Chapter 1 described the diversity of the PDC workforce and its organisational

structures at present. The intention of this research was that it should reflect

this diversity across the participant group and a variety of recruitment methods

were devised to promote the participation of dentists at all stages in their

careers, working in all types of organisation within the defined PDC setting. The

purpose of this approach was to achieve transferability of the findings within the

wider geographic setting and to facilitate the study to identify and reflect the

different perceptions which participants' diverse circumstances, experiences

and expectations may have generated. With regard to SW/AT, this approach

was used to increase the potential to identify informal social worlds and sub-

worlds which may exist within the PDC arena, in addition to its formal

organisations. Furthermore, by including dentists at all career stages, an

appreciation of the influence of structure and agency upon social worlds over

time was more likely to be possible.

The participant selection criteria for the study population are summarised in

Table 2. The geographic extent of England, as a setting, was considered when

devising the recruitment and data collection stages of the research, detailed

below.

Table 2: Participant selection criteria

Inclusion criteria	Exclusion criteria	Notes
Qualified dentist	Other qualified dental care professionals Dental students	Foundation Dentists are eligible to take part
Currently working in England	Not currently working in England	Dentists who also work in another part of the UK or overseas, are eligible only if their work in England is in PDC
Currently working in PDC	Not currently working in PDC	Dentists who work in PDC and also in another setting (secondary or tertiary care, academia etc.) are eligible to take part
PDC includes: General dental practices CDS Personal Dental Services Other PDC services and organisations providing care equivalent to the above listed services, with a variant service or organisation name	PDC excludes: Limited specialist practices Defence Dental Services	PDC settings which are taking part in new contract pilot schemes are included

4.5   Rationale for sampling method

4.5.1   Sampling process

The objective of the sampling method, consistent with qualitative research

principles, was to generate a 'non-probability sample…deliberately selected to

reflect particular features of[,] or groups within[,] the sampled population', in

order to study the data thematically, and in depth, rather than statistically (196: p.78).

'Purposive sampling' (139: p.56) is an approach used in qualitative research in order to identify potential participants who have specific characteristics. It encompasses several methods, including '*theoretical sampling*' (139: p.57, authors' emphasis) and 'snowballing' (196: p.94). Theoretical sampling is an iterative method whereby the research aim informs initial contact with potential participants and the outcomes of this initial stage inform the direction of further sampling (139). This technique was selected to reach dentists at all stages in their careers, across all aspects of PDC, throughout England, by recruiting participants through professional networks in the first instance. The intention was to create a heterogeneous sample, in order to 'identify central themes which cut across the variety of cases or people', when analysing the data (139, 196: p.79). In addition, snowballing was also employed, through which participants and other professional contacts were asked to pass on information about the study to their own informal and formal professional networks (139, 196).

Stratification was then used in order to focus further efforts towards dentists whose characteristics and experiences were not represented by existing participants. The use of stratification techniques in qualitative research is intended to ensure diversity within the sample, rather than to replicate the demographics of the wider population (139). Barbour (193) recommends that a 'sampling grid…should be seen as a potential tool to aid us in thinking through our sampling choices and decisions rather than being used as an immutable template' (193: p.72). Therefore, a sampling grid (Appendix 21) was devised to

record participants' characteristics and experiences, in order to inform subsequent phases of recruitment; however, a target quota of participants in each category was not applied. Subsequent cycles of purposive sampling were used to reach potential participants whose characteristics, career stages and locations were insufficiently represented by existing participants.

4.5.2   Sample size

Decisions regarding sample sizes in qualitative research relate to the nature of the research question, the purpose of data collection, the theoretical perspective taken in the research and the feasibility of the task (139). Whilst some types of research can be conducted with a single participant, studies designed to generate a thematic analysis from data collected from semi-structured interviews will often include 15 to 30 participants (139). Some research methods, such as grounded theory, aim to achieve saturation, which is considered to be 'the point when additional data fails to generate new information' (139: p.55), although this is not deemed to be relevant to all theoretical standpoints.

In this study, I aimed to recruit between ten and 20 participants from each of the two types of PDC setting. Recruitment ceased when all of the known professional networks had been approached to cascade the invitation to members, and no further contact was received from potential participants.

4.5.3   Management of ethical issues relating to recruitment

From an ethical perspective, it was considered inappropriate for me to directly ask dentist colleagues and friends to take part in the study, as they may have felt an obligation to take part. Consequently, a recruitment strategy was devised in which dentists were invited, through professional networks, to find

out more about the research from the study webpage. This meant that I was not directly approaching any dentists with a view to taking part in the study, but that dentists who knew me were not automatically excluded from taking part in the study.

My knowledge of PDC was helpful in identifying suitable professional networks and organisations through which the study could be publicised. In addition, I was also able to identify key contact people who could permit access to inform their members about the study. The recruitment strategy is described in detail below.

4.5.4 Recruitment process

Dentists were approached via several professional organisations and networks in the first instance. Contact was initially made by email to the contact person for each professional organisation and cascaded to organisation or network members. In addition, some contact people welcomed the provision of informative 'flyer' leaflets or a brief oral explanation of the study at an organised event. Groups of dentists which were more difficult to engage via the initial methods, including Foundation Dentists and dentists working in corporate dental practices, were approached through specific networks relevant to those groups.

In order to reach potential participants throughout England, participants were initially recruited via an invitational message about the study (Appendix 22). This was sent to the members of a range of professional organisations, as an email or as a posting on the organisation's webpage, by the organisation's secretary, or a similar committee member. This briefly explained the study and invited members of the organisation to take part by providing them with a link to

a webpage for the study (Appendix 23). The webpage included more information about the study and the researcher, a designated study email address and hyperlinks to the participant information document (Appendix 24) and consent form (Appendix 25). The consent form was provided in Microsoft Word format and a link to an alternative web-based (Survey Monkey) consent form was provided, in order to facilitate completion of the consent process by people accessing the web page via a smartphone or tablet device.

When organisational contacts were approached by email, some also invited me to send flyers (Appendix 26) for attendees, a PowerPoint slide (Appendix 27) to be shown before or after a presentation, or to attend in person to briefly explain the purpose of the study. These items were provided when requested and I attended three Continuing Professional Development (CPD) lectures to introduce the purpose of the study. The flyer was designed to incorporate a QR code, enabling people to access the study webpage directly from the paper flyer, using a smartphone. An electronic version of the flyer was attached to the invitational email for later mailings.

The iterative phase of purposive sampling was directed towards recruiting dentists who were currently working in corporate-owned general dental practices and those who were currently completing their Dental Foundation training. In this phase, contact was made with key professionals for Dental Foundation training by email. It was difficult to engage the dental corporates' management teams directly, so they were approached by email via local professional contacts with professional connections to dental corporates. In both circumstances, directors and managers responsible for groups of dentists were requested to cascade the invitation message to the dentists in their group.

Organisations which were contacted at a local, regional or national level, to request their involvement in distributing this information to their members, included:

- British Association for the Study of Community Dentistry (BASCD);

- British Dental Association (BDA);

- Faculty of General Dental Practitioners of the Royal College of Surgeons of England (FGDP);

- Local professional groups;

- UK Committee of Postgraduate Dental Deans and Directors (COPDEND).

It is not possible to report how many dentists were invited to participate in the study, as the recruitment process involved cascading invitational emails and flyers via professional networks. Consequently, the distribution of recruitment information was at the discretion of intermediaries, such as the secretaries of local and national professional societies, the management of dental corporate bodies and the local and regional coordinators of Foundation Training schemes. It is also likely that some dentists would have received information from more than one professional network during the course of the recruitment process. Table 3, below, provides an indication of the membership of some of the professional networks through which invitations were distributed, where membership numbers were available. It should be noted that some professional organisations (indicated with an asterisk in Table 3) include an unspecified number of members who are not dentists based in PDC and would not meet this study's participant selection criteria. The overall sequence of recruitment activities is listed in Appendix 28.

Table 3: Estimated membership numbers for some of the professional networks which agreed to distribute recruitment information

Professional Network	Approximate number of members	Source
Faculty of General Dental Practitioners*	4,500+	FGDP (197)
Foundation Dentists	871	COPDEND (198)
Greater Manchester Primary Care Providers (Dental)	470 (dental practices)	NHS England (199)
British Society for Oral and Dental Research*	458	BSODR (200)
British Association for the Study of Community Dentists*	170	BASCD (201)
Devon Independent Practitioners' Group (DIPG)	150	DIPG (1202)
Peninsula Dental School Clinical Supervisors*	81	Peninsula Dental School (203)
Cornwall Independent Practitioners' Group (CIPG)	60	CIPG (204)

Indicates membership numbers include an unspecified number of members who are not dentists based in PDC

4.5.5   Researcher impact upon participation

I included some information about my professional background in the study webpage, in order to avoid deception and ensure potential participants were aware of my association with dentistry. This connection may have been perceived in a positive light by potential participants, who may have been more inclined to take part in an interview with someone who could understand their own perspective. Conversely, others may have felt alienated by a researcher from a different aspect of dentistry or, alternatively, uncomfortable about being interviewed by someone with whom they may have worked (or to whom they may have referred patients). Still others may have chosen not to read the

researcher profile information and may have assumed I was a researcher with no direct connections with dentistry. Ultimately, it is not possible to establish whether my insider status influenced any potential participants to take part, or not to take part, in the study.

4.6 Rationale for choice of data collection method

Social constructionism recognises that participants' views are only knowable through their words, which are used consciously to convey those views to a particular audience, in a specific context, and that this will influence what, and how, participants choose to say about their thoughts (143). The selection of the data collection method focused upon identifying the most appropriate approach to enable participants to share their views, at least in confidence with me as a researcher, rather than in a group context, in which their explanations of their views may have been further influenced by the presence and comments of other participants.

4.6.1 Semi-structured interviews

Interviews were selected as the data collection method of choice because they are the most suitable method for gathering data about participants' perceptions (205). Specifically, Braun and Clarke (139) regard interviews as being 'best suited to exploring understandings, perceptions and constructions of things that participants have some kind of personal stake in' (139: p.81). Interviews have been described as 'a conversation with a purpose' (205: p.78) by Legard *et al*., citing Webb and Webb (206: p.130). Whilst some authors make a distinction between semi-structured interviews and unstructured interviews (139), others describe all qualitative interviews as 'in-depth' or 'unstructured' interviews (205: p.138). In either case, the key feature of the interview is that 'the researcher

asks the participant a series of (ideally) open-ended questions, and the

participants responds *using their own words*' (139: p.79, authors' emphasis).

The distinction, if made, relates to the extent to which the interviewer structures

the interview and guides the participant with questions drawn from a schedule,

or topic guide (205). I elected to devise a brief, but relatively structured, topic

guide, discussed in section 4.6.6.1 of this chapter, in order to ensure that I

covered all the key areas in every interview. Therefore, I have described my

interviews as semi-structured.

4.6.2   Alternative data collection methods

Alternative commonly-used qualitative data collection methods include focus

groups (207) and ethnographic observations (208). Focus groups involve

discussing the research topic with participants in a group situation and result in

data being created by collaboration between participants (207). Braun and

Clarke (139) argue that focus groups are more appropriate for researching

topics which are not especially personal to the participants. This option was not

selected because it is not designed to elicit the unmodified views of individual

participants and there is potential for discussions to be dominated by some

participants and for individual participants to feel reluctant to share their views

and perspectives with professional peers.

Ethnography enables participants' actions, or behaviours, to be observed and

described by the researcher (209). However, observational methods do not

directly facilitate participants to articulate their beliefs and opinions through

language. Therefore, this approach is not compatible with research which aims

to identify participants' meanings.

Structured interviews were not considered as an alternative data collection method for this research because they dictate response choices to participants and do not facilitate them to use their own words to convey meanings (139).

4.6.3 Face-to-face interviews

Qualitative interviews have traditionally been undertaken face-to-face with participants (210). It is now usual to record interviews using digital audio equipment, allowing the researcher to concentrate on listening to the participant's responses, rather than taking copious notes (139, 205, 211). Face-to-face interviews enable both parties to observe and respond to each other's body language and non-verbal cues and establish rapport (139, 212). However, it may be difficult to find a convenient venue which is available at a suitable time and is sufficiently private, where interruptions can be avoided (205).

Furthermore, when conducting research over a large geographic area, it may be unrealistic, costly or environmentally unfavourable to meet participants face-to-face for research interviews (213). The geographic extent of the research setting for this study meant that it was not feasible to conduct face-to-face interviews for participants across much of the setting; nor was it realistic to recruit multiple interviewers to cover the whole area. In order to overcome this issue, alternative interview media were considered. These options included audio-visual or telephone interviewing, in addition to face-to-face interviews for participants based in my geographical area.

4.6.4 Alternative interview media

Face-to-face interviews have long been considered the gold standard for qualitative interviewing, as they enable the interviewer to fully comprehend the

physical context of the interview, as well as the interviewee's body language and non-verbal communication (210). In contrast, telephone interviewing has been criticised for its limitations in those respects (212), however it has the advantage of overcoming the barriers of distance and inconvenience which may prohibit some people from taking part in research (214). Some researchers have also argued that removing visual cues 'allows the researcher to "stay at the level of text"' (213: p.240) by Hanna, citing Holt (215).

With advancing technological developments, the audio-visual interviewing modality has become an alternative option, enabling interviews to take place at a distance, from convenient locations, whilst enabling both the participant and the researcher to observe non-verbal signals and body language during the interview (210, 213). However, some researchers have concluded that, even with video and audio, online interviews can feel awkward and do not enable the same level of rapport as face-to-face interviews, particularly when sensitive subjects are being discussed (212).

At present, audio-visual interviewing can be achieved through several interfaces, such as Skype and FaceTime (212). Skype has particular advantages in that it is freely available to users and it can be used on various digital media (210). It has been found to be especially useful for enabling interviews to be undertaken at flexible times, to accommodate participants' work commitments, as many people have access to suitable digital devices at home (210). Technical problems can occur during audio-visual and telephone interviews, for example, poor sound quality or the loss of a connection during an interview (210, 212, 213). However, advance preparation for such problems can minimise the likelihood of disruption (210, 212).

4.6.5   Rationale for offering alternative interview media

Consequently, audio-visual interviewing was positioned as the primary modality through which participants could take part in this study. It was anticipated that many primary care dentists would prefer to be interviewed outside their normal working hours, perhaps in the evening or at weekends, to avoid the research encroaching on their clinical time. Interviewing participants in their own homes or workplaces at these times created potential safety issues for a lone researcher, however, requesting interviewees to travel to an alternative venue could have created a further barrier to participation. Given the likely socio-economic status of dentists working in England, it was considered that virtually all potential participants would have access to a suitable computer, tablet device, smartphone or other telephone, either at home or in their workplace, in order to take part through audio-visual or telephone modalities.

4.6.6   Preparation for data collection

4.6.6.1 Topic guide

A topic guide can facilitate successful interviewing by providing the researcher with a basic structure and sequence for the interviews and a set of suitable reminders, or questions and prompts for each topic which the researcher intends to cover (139). I developed a topic guide which was initially informed by the findings of the systematic review. The review identified constructs relating to role ambiguity and role conflict between GDPs and community dentists, as a general issue, and specifically in relation to the referral of patients between these general dental practices and CDSs. In view of these outcomes, I generated specific topic areas regarding participants' perceptions of their own roles and responsibilities and those of their work setting, their expectations of

dentists working in the other PDC setting, and perceptions of the specific roles and interactions between dentists in the two settings when a referral takes place.

Legard *et al.* (205) describe two types of interview question which should be used in combination. They suggest that a 'content mapping question is asked to raise issues; content mining questions are used to explore them in detail' (205: p.148). I included in the topic guide a combination of broad questions introducing topics of relevance to the research and prompts which I could use to enquire further. The topic guide (Appendix 29) was worded to suit GDPs and community dentists and it enabled me to move back and forward between topics, to suit the direction of participants' responses, ensuring that all main topics were covered, if not in the planned sequence.

The topic guide was deliberately brief in order to help me to adopt a conversational tone, as '[t]his encourages active interviewing, becoming responsive to the situation and most crucially to the terms, concepts and language used by the participants themselves' (216: p.123). One additional prompt was added to the topic guide part way through the data collection period, in response to a reflection made after an interview. I had noticed that some participants shared their reasons for making certain decisions about their career direction. I realised that this related to participants' motives and values and that it would be helpful to ask people about whether they could think of any particular reasons for their decisions, if they did not offer an explanation for their career direction.

4.6.6.2 Pilot interviews

Pilot interviews are recommended for improving a researcher's interviewing technique, familiarising with recording equipment and improving the topic guide

(139). I undertook pilot interviews with dentists who did not take part in the study, in order to assess whether the questions and style of the interviews made sense to participants. The pilot interviews enabled me to improve the flow of the questions from opening the interview, through gathering demographic information and into the questions which required more thoughtful responses about participants' views and perceptions. As a result, I used an open, career-history question to gather most of the demographic data, in order to ease participants into telling their story and sharing their thoughts about their profession. This initial question was followed with additional queries when demographic details remained to be clarified. The pilot interviews took place using Skype, in order to simultaneously understand the practicalities of using this media, as recommended by Seitz (212). In addition, I tested the effectiveness of the proposed digital recording equipment for providing adequate sound quality whilst recording participants' voices via a computer speaker.

4.6.7   Documenting interview data

4.6.7.1 Audio recording

I transcribed all the interviews *verbatim* from the audio recordings, in order to increase familiarity with the data. Transcription was facilitated by the use of an Infinity 2.0 foot pedal and Phillips SpeechExec Transcribe 7.0 software, to control the playback of the audio recording. In order to anonymise the interview transcripts and all subsequent documents reporting primary data, each participant's transcript was allocated a prefix of CDS or GDP, according to their main work role, followed by a numerical suffix (1-12 for community dentists; 1-

10 for GDPs). In the transcripts, my contributions to the interviews are designated by the letter R (researcher).

4.6.7.2 Reflective notes

At the end of each interview, I made reflective notes about the interview, including observations and points of interest about the participant's contribution and context, as well as my experience of the interview as an interviewer. I also wrote memos whilst transcribing, as and when listening to the recorded interview prompted me to recall a point of relevance.

4.6.8   Interview process

4.6.8.1 Organising the interviews

On the study webpage, potential participants were invited to read the participant information and complete the consent form, if they were interested in participating in the study. Interview arrangements were made with potential participants by email, following the receipt of a completed consent form via email to the study email address, or via Survey Monkey. At this stage, participants were also asked to confirm that they were working in PDC in England, in order to minimise ineligibility at the interview stage. A range of possible interview dates and times was sent with an email acknowledgement. Participants were offered a Skype interview, with a telephone interview being offered as an alternative. For participants working in the same city as me, a face-to-face interview was also offered. Once a convenient time and medium had been agreed, contact details were requested from participants so that I could telephone or contact them via Skype at the scheduled time. Where possible, an additional telephone number was noted in case of any problem making contact.

4.6.8.2 Confirming informed consent

Given that consent was obtained at a distance and in advance of the interviews, I confirmed informed consent, verbally, at the start of each participant's interview. I checked with all participants that they had read and understood the participant information and the consent form. I reiterated the main points of the participant information and consent form and asked each participant if they had any questions which they would like me to answer before starting the interview; no questions arose at this stage. I confirmed verbally with each participant that they were willing to proceed, before continuing the interview; all participants were willing to proceed.

4.6.8.3 Characteristics of the interviews

In total, 22 dentists participated in research interviews over a period of four months from mid-January to mid-May of 2016. The interviews ranged in duration from 33 minutes to 88 minutes, with the majority of interviews lasting between 40 and 60 minutes. Most of the interviews took place in the evening or at a weekend.

Although remote audio-visual interviews (via Skype) were proposed as the main form of contact, only five participants elected to take part this way. The majority of participants (14) opted for a telephone interview and a further three participants were interviewed face-to-face. One participant, who had arranged to take part using Skype, could not be contacted via Skype at the scheduled time; however, this participant was contacted by telephone and elected to complete the interview by telephone. Another participant could not be contacted by telephone at the agreed time, but responded to a follow-up email and rescheduled the interview for a more convenient time.

4.6.8.4 Non-participation

One potential participant arranged a telephone interview but could not be contacted at the agreed time and did not respond to a follow-up email offering to reschedule the interview. This person was assumed to have chosen to withdraw from the study. One other potential participant had confirmed eligibility by email but on checking this at the start of the telephone interview, it became apparent that the person was working in secondary care only and did not meet the eligibility criteria for the study. This was explained to the potential participant, who was thanked for taking an interest in the study and the interview was brought to a close.

4.6.9 Researcher impact on data collection

The proximity of a researcher to participants' social worlds is fundamental to the research paradigm of Structuration Theory (145, 161). The relevance of mutual knowledge to qualitative data collection methods, including interviewing and ethnography, has also been considered (139). This has given rise to the concept of the researcher as an 'insider' or as an 'outsider' relative to their participants' social contexts (217: p.55). An insider is 'thoroughly immersed in the social situation' (143: p.11) being researched and can draw upon that knowledge and experience as a researcher. In contrast, an outsider cannot 'claim to "understand" (217: p.57) the experience' from the same perspective as participants.

It is recognised that researching from inside or outside a participant community can influence both participant recruitment and the interaction between the participant and the researcher during data collection (218). Firstly, the prior knowledge and cultural familiarity of the insider researcher may lead to the

researcher failing to notice and, therefore, to question, shared norms (219). The insider may be aware of potentially sensitive issues and may seek to avoid them, whereas an outsider might unwittingly raise such an issue without being considered to have caused offence, and may be able to elicit more information which explains the sensitivity (218, 220). In a similar manner, a participant's assumptions of shared understanding with an insider researcher may mean that explanations which might have been offered to an outsider are left unspoken, or referred to obliquely, rather than being made explicit (220). However, Corbin Dwyer and Buckle (217) argue that researchers are often both insiders and outsiders in relation to the multifaceted social contexts of their participants, even within one research topic, and may find themselves identifying with some participants more than others. Consequently, it may be preferable to considered insider-outsider status as a continuum, rather than as a dichotomy (143).

Other facets of a researcher's status can also be defined, in particular, their role as an 'expert', or as a 'learner' (143: p.11). Blaikie (142) describes the expert as using prior knowledge to answer the research problem, whereas the learner draws upon the explanations of the participants to answer the research question. As a dentist and novice researcher, exploring a PDC-related problem, my position as an 'inside-learner' (143: p.11) may appear self-evident. However, to other dentists, my insider status may not have been so clear-cut, as the vast majority of my clinical experience related to community dentistry, rather than general dental practice. As demonstrated in the systematic review, many dentists perceived professional divisions to exist between dentists who work in these two aspects of PDC. Consequently, I may have conveyed more of an insider position to community dentists, whilst potentially having been seen as an

outsider by GDPs. In addition, as a general dentist, rather than a specialist, those community dentists who were specialists in Paediatric or Special Care Dentistry may have viewed me as being a different type of dentist to themselves. My interest in Dental Public Health and my academic role may also have set me apart from dentists whose roles were entirely patient-facing, whether they worked in the CDS or general dental practice.

4.6.10 Management of ethical issues relating to data collection

Participants were provided with a participant information document via the study website and were requested to read the document prior to completing the consent form. Receipt of a completed consent form as an attachment to an email sent to the study email address, or completion and submission of a consent form via Survey Monkey, was considered as confirmation of consent. Irrespective of interview medium, consent was confirmed verbally with each participant at the start of the interview.

At the start of the interviews, participants were reminded of several key points mentioned in the participant information document. In particular, they were asked to avoid referring to any patients by name, to protect their patients' rights to confidentiality. Participants were also reminded that if they raised a previously unreported, unprofessional issue, I would be required to discuss the issue with my supervisors and consider whether any follow-up was necessary with the relevant regulatory authority.

In the event of any indication of distress from a participant during an interview, the participant would have been given the opportunity to pause, or end, the interview. As many dentists working in general dental practices do not have access to a dedicated support service such as an occupational health team, I

planned to direct participants to their general medical practitioner for further help, as an alternative. There were no episodes of distress during the data collection phase.

For face-to-face interviews, I booked a suitable meeting room in university premises to maintain confidentiality, anonymity and safety, and confirmed the venue with the participant by email. It was agreed that I would discuss with my supervisors if I experienced any distress as a result of the interviews but in fact no distressing issues occurred.

Digital audio recordings were transferred to an encrypted university computer immediately after each interview and the original versions were deleted from the digital recording device afterwards. Recordings did not have to be shared, as I transcribed all of the interviews myself. Transcripts were also stored on an encrypted university computer, with each participant being identified by an anonymised code, rather than by name. Other identifiable information, such as place names, professional organisations and dates, were redacted in versions of the transcribed data which were to be shared beyond the supervisory group. Paper copies of the transcripts were kept in a locked filing cabinet on university premises. Participant contact details were stored separately from interview transcripts and audio recordings. The key to the anonymised codes was recorded on paper and kept in a locked filing cabinet.

4.7   Rationale for choice of data analysis method

4.7.1   Thematic analysis

Thematic analysis is a commonly used method of analysing qualitative data in various social sciences. It enables the researcher to record and interpret patterns, or themes, in a set of data (60). Braun and Clarke (60) provide an

explanation of the theoretical flexibility of this method, as well as describing the

practical stages of the process involved. Although variants of thematic analysis

are associated with several approaches to qualitative analysis, including

grounded theory and framework analysis, Braun and Clarke claim that thematic

analysis is 'a method in its own right' (60: p.78), which is compatible with

diverse theoretical perspectives. Thus, using a realist perspective, it can be

used to describe 'the reality of participants' (60: p.81), whereas from a

constructionist perspective, it can be used to achieve greater depth by exploring

the societal consequences of apparent realities.

Braun and Clarke describe six 'phases of thematic analysis' (60: p.86), which

are listed as:

1. 'Familiarizing yourself with your data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report' (60: p.87)

The familiarisation process involves transcribing and reading the data and

recording initial thoughts during this process. Initial coding involves

systematically identifying relevant segments of data and gathering these

segments together into groups, or 'codes' (60: p.87). The codes are then

compared and related to each other, clustering to create 'themes', at a more

conceptual level. These themes are then refined by a process of checking that

individual themes make sense of all the relevant coded data and that both

individually and collectively, the themes form an '"accurate representation"' (60:

p.91) of the whole of the data. Finally, the researcher combines narrative

interpretation with illustrative quotations to convey the analysis to the reader.

Whilst this description suggests a '*linear*' (60: p.86, authors' emphasis) approach to the process, Braun and Clarke emphasise the '*recursive*' nature of thematic analysis, which necessitates shuttling between raw data, potential codes and tentative themes and taking time to create a thorough interpretation of the material. They also highlight the importance of writing down thoughts and ideas throughout the process, and warn against viewing the production of a report as an isolated final step in the process (60).

4.7.2   Alternative data analysis methods

Framework analysis is an alternative method for generating themes and guiding subsequent interpretation of qualitative data. It is characterised by the development of a 'thematic framework' (221: p.179) at an early stage of the analytical process, prior to extensive coding of the data. From a theoretical perspective, framework analysis is based upon subtle realist ontological assumptions (222).

Framework analysis was originally devised by Ritchie and Spencer, for the analysis of applied social research (221, 223). It was developed for situations where researchers were required to work in teams to produce findings within relatively short timescales, in order to inform policy development (221). More recently, the approach has found favour in healthcare research, where it is perceived to 'offer clarity, transparency, [and] an audit trail' (222: p.2423) for people who need to apply the findings.

The process consists of five main stages:

- 'familiarization
- identifying a thematic framework
- indexing
- charting

- mapping and interpretation' (221: p.178)

The familiarisation stage may involve reviewing all the data but more commonly involves reviewing a selection of the data which should be as diverse as possible. Themes which are detected during familiarisation are organised into a thematic framework, prior to systematic line-by-line coding (indexing) of all the data. Whilst the framework is based upon the data and can be modified, it is usually finalised prior to the indexing stage. The indexed sections of data are positioned into charts which reflect the source of the data and the theme with which the extract relates. The final stage involves making connections between concepts identified from the thematic charts and the research question. At this stage, maps, typologies and explanations can be developed through interpretation of the data (221, 223).

4.7.3 Rationale for use of thematic analysis

Of the various methods available for the qualitative analysis of the transcripts of semi-structured interviews, thematic analysis and framework analysis share a focus upon generating themes from qualitative data. Braun and Clarke (60) claim that 'thematic analysis should be seen as a foundational method for qualitative analysis' (60: p.78). Indeed, framework analysis is described by Ward *et al.* (222) as a specific version of thematic analysis, and analysis is driven by the data in both methods.

Framework analysis has particular strengths for analysis which involves multiple researchers and limited timescales, as the structure of the thematic framework is specified at an early stage in the analytical process, sometimes based upon a sample of the data set (221). Conversely, thematic analysis focuses upon line-

by-line coding of the entire data set before building up themes derived directly from the codes (60).

As a relatively novice researcher, bringing a significant level of personal experience of the PDC setting and the existing research literature, I felt that using an analytical method which prioritised the development of broad themes at an early stage in analysis might increase the potential for me to draw upon my prior knowledge in an effort to organise the participants' words and meanings. However, I felt that it would be preferable for me to work up to an understanding of the data as a whole from its component parts (codes), gathered in a manner which allowed me to acknowledge their existence without committing myself to giving them a particular interpretation or assumption of relevance. In addition, I intended to begin analysis in parallel with ongoing data collection. I was concerned that creating a framework of themes, albeit one which could be revised, would encourage me to place greater significance upon the themes derived from data in early interviews, and reduce my ability to give equal weight to the perspectives presented in data from later interviews. Thus, I felt there was a risk that the meanings interpreted from earlier participants' data might dictate my interpretation of meanings shared in later interviews.

Furthermore, from a theoretical perspective, whilst thematic analysis is compatible with realist or constructionist approaches to analysis (60), framework analysis is more appropriate to research which adopts a realist approach (222). That is, framework analysis is incompatible with the research paradigm underpinning this study, as Structuration Theory is based upon an idealist ontology and social constructionist epistemology. Consequently, thematic analysis provides greater scope for a deeper, more critical analysis of

the language and concepts conveyed by participants, than would a realist-based framework analysis of the same data, whilst sharing a similar sequence of stages and processes, and therefore similar potential for transparency, with framework analysis. As my research is underpinned by constructionist assumptions, I have applied thematic analysis using the latter approach, that is, 'to theorize the sociocultural contexts, and structural conditions, that enable the individual accounts that are provided' (60: p.85).

4.7.4   Products of qualitative data analysis

Spencer *et al.* described the 'analytic hierarchy' (209: p.213) of products of qualitative research in general, in which the original data is initially sorted and described, producing themes. At a higher level of descriptive analysis, the researcher may identify 'typologies' (209: p.214), which often represent people who have been classified into groups, either by participants or by the researcher. Spencer *et al.* (209) cited Patton (224) who described such typologies as 'indigenous' or 'analyst constructed', respectively (209: p.214).

Subsequent levels of analysis take this descriptive information and sift it, in an iterative process, to create more abstract and potentially explanatory products (209). There has been some debate about the potential to apply qualitative research findings to wider social contexts. Spencer *et al.* (209) acknowledged Giddens's view that such findings cannot be extrapolated to generate causal explanations, for social situations. As explained in Chapter 3, Giddens (161) argued that people's actions may have unintended consequences, and the outcomes of their agency are, to an extent, influenced by structural factors outside their control. Thus, causation cannot be claimed in the social sciences in the same sense in which it is used in the natural sciences. However,

Spencer *et al.* (209) argued that such findings can provide evidence of patterns which, through extrapolation, offer clarity about the connections between socially influential factors, beyond the original research aim.

In this thesis, I have sought to present a descriptive thematic analysis of the findings in Chapter 5 staying close to the data provided by participants. In Chapters 6, I have interpreted from these themes, to identify typologies, patterns and issues which may have wider policy implications within PDC in England, and these are discussed in Chapter 7. However, following Giddens's logic, I recognise that any such implications are contingent upon many other factors and do not provide a causal explanation for the current context of PDC.

4.7.5   Data analysis process

4.7.5.1 Familiarisation with the data

Data analysis took place concurrently with data collection. Following transcription, I also listened to transcripts during the coding process, to familiarise myself with the emphasis participants placed on words and phrases. I also referred to my memos for additional contextual detail and created additional memos to record further thoughts, noting sections of data which might be coded later.

4.7.5.2 Labelling, coding and generating initial themes

I used a line-by-line approach to coding all sections of all transcripts, marking text which I considered may have relevance by underlining it on the paper transcript and annotating the margin with a brief statement summarising the relevant text. These brief statements acted as labels, or precursors to formal codes, allowing me to identify similar ideas without confining myself to a definitive wording in the early stages of analysis. Two excerpts from labelled

transcripts are provided in Appendices 30 and 31. Similar labels were written on post-it notes, collated as a set and used to produce the final name for each code, as shown in Appendix 32. Although I began to consider potential names for the codes and initial themes before all transcripts had been coded, I continued line-by-line labelling for all transcripts. Names for the codes were not finalised until line-by-line labelling was completed, and names for the initial themes were not finalised until the codes were all named. This was done to ensure that equal value was placed upon each transcript in terms of its contribution to the final names of the codes and initial themes. Initial themes were identified by collating the codes into groups where connections between codes were evident, for example, all codes which described 'motivation, purpose and career choice' were initially grouped together, as shown in Appendix 33.

4.7.5.3 Using paper transcripts and data management software

The coding process took place using paper transcripts, as I found it easier to visualise each transcript and recall each interview this way, and I made extensive use of colour during the coding process, which enabled me to refer back to multiple transcripts to compare sections of data quickly. By using colour and post-it notes to record labels from the data, I was able to rearrange them with ease until I was satisfied with the coding system and initial themes. However, in order to allocate the full data segments to each code and initial theme, I transferred all transcripts and the list of codes and initial themes into NVivo 11 software. This enabled me to refer to the original data, catalogued by codes and initial themes, and to interpret revised themes.

4.7.5.4 Refining and naming themes

In order to refine the themes, the initial themes were considered in relation to the original research aim and objectives. At this point, I wrote extensive notes to describe how the various codes were connected, and through this process I identified connections across the initial themes. Often, I found that opposing viewpoints existed in relation to a particular initial theme, for example, whilst many participants mentioned 'earning a living' when they described motivation for a particular career choice, some participants focused upon 'contributing something more' to society. Similarly, within the initial theme of 'working together', the value of 'inter-professional working' was mentioned by most community dentists, whereas several GDPs emphasised their preference for 'working alone'. Over several iterations, I mapped out a set of refined themes which were reorganised to illustrate the pivotal issues for dentists, explaining both the similarities and the differences for participants' perspectives. Once the refined themes had been established and named, sub-themes were identified and named to clarify different aspects of each theme. The final set of refined themes and sub-themes is provided in Appendix 33.

4.7.5.5 Developing typologies

During the process of refining the themes, especially recognising the contrasting perspectives of various participants, I gradually developed an analyst-constructed typology of the participants. This was a classification based upon several aspects of dentists' professional roles, on which participants held strong and contrasting perceptions. In addition, I noticed that participants described an indigenous typology of patients, which was relevant to the research aim.

4.7.5.6 Mapping the social worlds and arena

Throughout the familiarisation and coding process, I noted the people, organisations and concepts which were mentioned by participants, in connection with their social worlds. Based upon these depictions, I produced maps to show the associations between different worlds and sub-worlds inhabited by the participants within the arena of PDC.

4.7.6　Credibility checks on the analysis

The first five transcripts were separately coded by individual PhD supervisors (DM, JR, MN) in order to check the consistency of my coding process. The development of the codes and themes was discussed at a series of supervisory meetings, initially with all supervisors, and continuing with one supervisor, throughout the analytical process. I generated the final set of codes and the initial and refined themes myself, in an iterative manner, discussing each iteration with my supervisor (JR).

Having developed the revised themes and produced a typology of dentists working in primary care, I presented my findings to other qualitative researchers at a seminar, which enabled me to obtain feedback from other researchers regarding aspects which would benefit from greater clarity. I used this feedback to critique my narrative description of the themes and typologies and to develop the direction of my interpretation of the findings.

4.7.7　Sharing findings with participants

All participants were informed by email when a summary of the findings was available on the study webpage, thus enabling participants to obtain an overview of the themes which were identified in my analysis. This summary is provided in Appendix 35. Two participants responded after reading the

summary; in both cases they were writing to report progress or future preferences in relation to an issue about referrals which they had raised in their interviews. Both participants also endorsed the summary itself. The findings were presented and discussed at a seminar at which primary care dentists who were not interviewed responded to my analysis and reported that they identified with the themes which I had derived from the original data. The findings were disseminated more widely at two national conferences (BASCD and BSODR), which also provided opportunities for feedback from other dentists. Although feedback was limited, the potential significance of the impact of dentists' values and current contracting arrangements upon certain patients' access to PDC was acknowledged by several dentists with an interest in Special Care Dentistry and Dental Public Health.

4.7.8 Researcher impact upon data analysis

The ARS and the research paradigm of Structuration Theory are founded upon ontological and epistemological assumptions which require the researcher to be familiar with the social world in which social actors create meaning. Blaikie specifically argues that 'Social scientists must draw upon the same 'mutual knowledge' that social actors use to make sense of their activity' (143: p.96). As a researcher with clinical experience of working within PDC, I was well-placed to use my mutual knowledge of the setting in order to understand participants' perspectives. I have documented my personal and functional reflexivity in Chapter 1 and in this chapter, respectively, in order that readers can consider my potential impact as a researcher, when making their own interpretations of the findings.

4.7.9 Management of ethical issues relating to data analysis

Participants' personal details will not be published and where quotations are used, they have been presented anonymously and confidentially, so that they cannot be attributed to individuals. In particular, locations and dates relating to professional work or training and specific professional roles held with identifiable organisations, have been redacted from published excerpts of transcripts.

4.8   Summary

In this chapter, I have presented the aim and objectives of an interview study which was designed to explore the meanings primary care dentists attach to their professional roles, with particular reference to patient referrals. I have reflected upon the impact of my role as a researcher upon the research question, study design, participation, methods and findings. I have detailed the participant eligibility criteria and recruitment processes, as well as data collection and analysis methods. The findings of the interview study will be described in Chapter 5 and my interpretation of the findings will be presented in Chapter 6. The implications of the findings, for patients and PDC, will be discussed in the context of wider literature in Chapter 7.

Chapter 5   Interview Study Findings

5.1   Introduction

The rationale and methods for collecting and analysing data from the interview study have been described and justified in Chapter 4. In this chapter, I will summarise the characteristics of the research participants, in order to provide a context for the thematic analysis. The findings of the analysis will be presented as six key themes which convey dentists' perceptions of their professional roles, and the ambiguous boundaries of those roles, particularly in relation to referrals within PDC in England. These themes are:

- Professionalism;

- The Nature of Care;

- Disconnection ;

- The Business of Dentistry;

- Obscure Rules;

- No Man's Land.

In the themes of Professionalism and the Nature of Care, I have detailed the aspects of participants' professional roles which they expressed as being important. The themes of Disconnection, the Business of Dentistry and Obscure Rules illustrate the context of working in the two main settings within PDC and the complexities of making and receiving referrals. The final theme, No Man's Land, explains how certain groups of patients are currently positioned, by both GDPs and community dentists, beyond the boundaries of participants' own roles. The themes, and sub-themes, are described in detail and illustrated using quotations from the transcripts.

The chapter concludes with a summary of dentists' perceptions of their own roles and the roles of their colleagues in the alternative branch of PDC. As explained in Chapter 3, the term 'role' is used within this thesis to mean a person's self-concept of their role identity, which situates them as a member of a socially-constructed group (137). This summary highlights the conflict within the roles of GDPs and community dentists, particularly those who do not have specialist status, and the ambiguity which surrounds the perceived purpose of CDSs.

The implications of this role conflict and ambiguity, for dentists, PDC services and patients, especially those currently situated in No Man's Land, will be discussed in subsequent chapters. In Chapter 6, I will interpret the findings in relation to the sociological theories which were elaborated in Chapter 3. In Chapter 7, I will relate my interpretation of the interview study findings to the systematic review findings and to the wider literature relating to relevant aspects of policy development and other sociological analyses of PDC in England.

5.2   Participation

5.2.1   Recruitment

In the majority of cases, each invitational approach to an organisation generated only one or two participants. However, cascading the email message and flyer via BASCD prompted a greater number of responses from across England, perhaps due to the number of eligible dentists who could be reached directly through this email cascade. In addition, this reached community dentists at all levels within many organisations and was likely to be cascaded to dentists again by their line managers, which may have acted as a reminder. In contrast, cascading the message via Linked In from the FGDP is

unlikely to have reached all members or the organisation and did not appear to

be an effective prompt, as it did not generate any participants. Similarly,

requests for directors and managers of dental corporates to cascade an

invitational email to their GDPs (of whom total numbers were not available for

reporting) did not produce any additional enquiries from potential participants.

5.2.2   Participant characteristics

A total of 22 dentists participated in the research study. Twelve of the

participants worked primarily in CDSs at the time of their interviews; ten worked

in general dental practices. Several participants were working concurrently in

teaching and research roles and some participants had worked in secondary or

tertiary dental services during their careers. Most of the community dentists

had prior experience of working in general dental practices and one was

currently working part-time as an associate in a corporate dental practice. In

contrast, only one of the GDPs had previously worked in community dentistry.

Three participants had originally qualified outside the UK and four had worked

in dentistry outside the UK in the past. Figure 5 gives an approximation of the

geographic distribution of participants' current place of work. The

characteristics and clinical experience of the participants are presented in

Appendix 36.
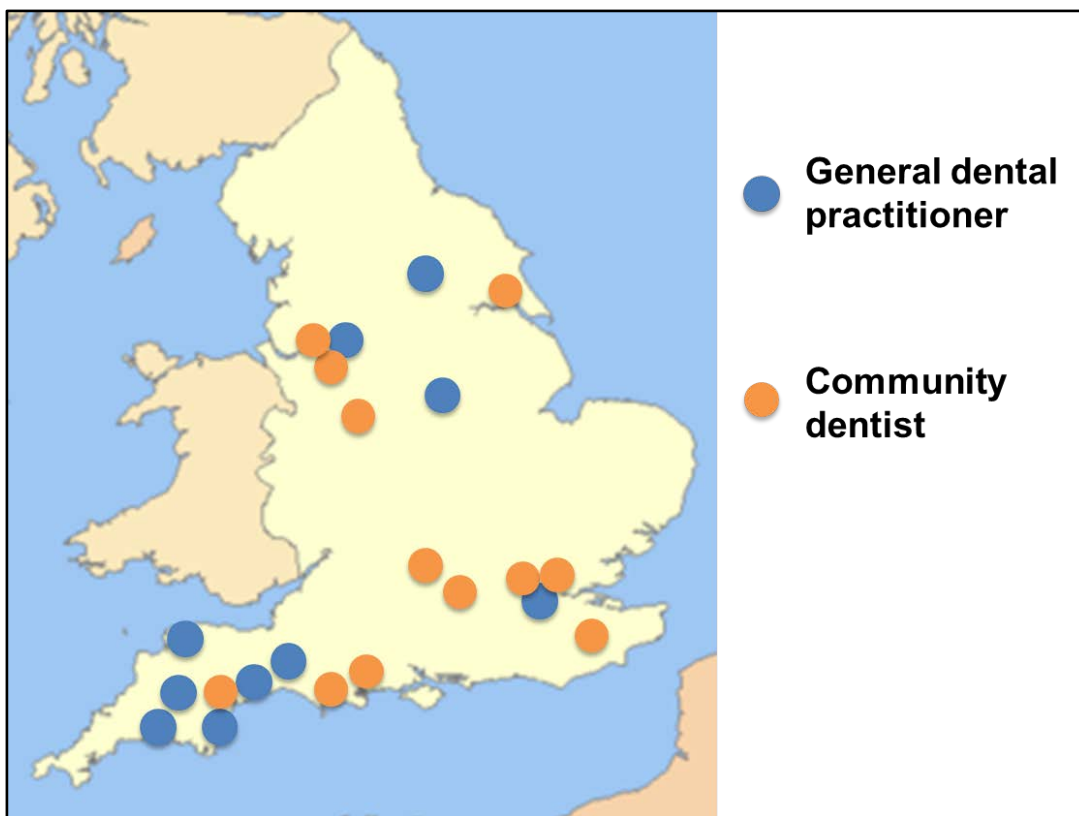
Figure 5: Geographic distribution of participants

Whilst male and female dentists were represented equally in the participant group as a whole, two female dentists were GDPs and nine were community dentists. Four dentists had qualified within the last decade, eleven participants had qualified between eleven and 30 years ago and seven had been qualified for over 30 years. Male and female dentists were distributed approximately equally between these early-, mid- and late-career phases, which are summarised in Table 4.

Table 4: Summary of participants by role, gender and years since qualifying

Role	Gender	Years since qualifying			Combined total
		Up to 10 years	11-30 years	31+ years	
GDP	Male	1	4	3	8
	Female	1	1	0	2
Community dentist	Male	0	2	1	3
	Female	2	4	3	9
Combined total		4	11	7	22

All the community dentists were employed in salaried posts, working directly for an NHS organisation or, occasionally, in a community interest company (CIC) which held a contract to deliver NHS services. They described their employment in terms of being a general dentist or a specialist (in Paediatric Dentistry, Special Care Dentistry, or, in one case, both specialties). Some participants were Clinical Directors, leading a CDS. Many of the specialists, and the male generalist community dentists, also described themselves as having leadership or management responsibilities within their service. None of the female generalist community dentists reported having such responsibilities.

In contrast, with the exception of two salaried trainees, the GDPs were self-employed dentists. Only two participants were associate dentists, working in practices owned by other people. One associate had previously owned the practice in which he worked. Both of the salaried trainees and one associate worked in dental practices owned by corporate bodies, as did the community dentist who also worked part-time as an associate. The remaining six participants were principal dentists of independent dental practices, three of whom worked in single-handed practices, with a further three employing one or more associate dentists.

5.3   Key themes

Using codes developed directly from the transcribed data, as well as memos written after interviewing participants and whilst transcribing each interview, I generated six key themes:

- Professionalism;

- The Nature of Care;

- Disconnection;

- The Business of Dentistry;

- Obscure Rules;

- No Man's Land.

Together, these themes explain how the participants presented themselves as professionals working in PDC in England, their roles in relation to patient care and the factors which influence, or impinge upon, how they carry out those roles. In addition, the complexities of current referral processes were illustrated by these themes. Finally, the themes show how participants depicted the patients for whom they accepted a professional responsibility and those for whom they did not. Appendix 34 lists the six themes and their constituent sub-themes. A detailed explanation of each theme is presented in the following sections.

Quotations from participants have been included to illustrate aspects of each theme and are indicated by indented text. I have used square brackets to indicate text which has been added for clarity or which has been redacted to maintain anonymity; in these instances, the original text has been replaced with a generic reference to the type of information which was redacted.

5.3.1 Professionalism

Participants described themselves as having a professional responsibility towards individual patients and, occasionally, towards an organisation or the local community. Many participants expressed a strong need to exercise clinical autonomy in their roles, which they associated with independence and control. Curtailment of participants' clinical autonomy was associated with frustration and disillusionment. Participants' post-qualification career choices appeared to be underpinned by a motivational factor, or for some participants, a balance between two factors. Working in general dental practice appeared to be the default career choice, with most community dentists having had a particular reason for choosing this alternative career. Participants varied in their level of engagement with institutions, notably the NHS, for reasons which often related to their motives and desire for independence.

5.3.1.1 Motivation

Participants' motives for following their chosen dental career varied widely. A career as a GDP appeared to be the default outcome of qualification as a dentist.

> 'I think it was the obvious thing to do.' (GDP9)

A decision to invest in owning a dental practice was a strong motivator for most of the GDPs (although it was not mentioned by the two recently qualified dentists in training). This focus on enterprise usually took the form of purchasing and running a single practice with an established, reliable patient base, making few changes to the business arrangements.

> '…so it's a very stable practice, we took it over from someone who'd been there for about 20 years, so it's been well-established in the town, it's well-known.' (GDP6)

Variations to this arrangement included buying and selling a series of practices in quick succession, setting up a completely new practice or seeking opportunities to collaborate and expand a practice.

> 'The buying and the selling of the practices, well I just had an enormous amount of energy… And that was very stimulating, too, that was great fun.' (GDP7)

In some cases, general dental practice represented a fall-back position after abandoning plans to follow a specialist career.

> 'I just thought 'do I really want to go back and do, you know, get that involved in it all again?' and that was at the point I gave up the idea to go back down the hospital route.' (CDS12, referring to past role as a GDP)

In contrast, working in CDSs resulted from an active decision to take a different career path. In some instances, participants described a very clear intention to care for people with additional needs, through their work as a dentist. Several participants described altruistic reasons for their decision, prompted by influential people or experiences, before, during or after qualifying as a dentist.

> '…she was a paediatric dentist and he was an adult restorative dentist… and both of them were very, yeah, very motivating, and very supportive about anyone who wanted to go into Special Care Dentistry.' (CDS11)

> '…my previous career was fine, I've got nothing bad to say about it but I suppose it wasn't altruistic enough and I suppose, for me, job satisfaction comes from trying to help people…' (CDS1)

For several participants, their career in CDSs was linked with a keen interest in paediatric dentistry and a willingness to study for relevant postgraduate qualifications and to work towards specialist status.

> '…I did a bit more training, got my FDS… Whilst in the community dental service I did a Masters in Paeds [Paediatric Dentistry], got on the specialist list and I continued within the community dental service until now…' (CDS7)

In other cases, this decision was a practical, financial decision, in response to the participant's need to maintain a steady income, to improve work-life balance, or to ease the transition back to work after a career break. Often, they had initially entered CDSs by providing urgent dental care in PDS pilot schemes. These participants were usually mid-career generalist community dentists, who made no reference to an intention to specialise, although some did have leadership, research or educational roles.

> '…I'm not very money-driven, and also the fact it's more of financial security…' (CDS10)

For some participants whose reasons were essentially practical, working in CDSs provided an unexpected level of job satisfaction, which prompted them to continue working in CDSs longer than planned.

> 'It was one of the most enjoyable and fulfilling jobs I've actually had. I took it, not because I wanted, as a career move into community…I moved area and saw it as a good opportunity to get a job while looking for a practice…' (GDP2)

5.3.1.2 Responsibility

Participants were swift to emphasise their professional responsibilities, usually relating to their own patients. They perceived themselves to have a relationship with each patient, in which they were responsible for maintaining the patient's good dental health, in exchange for the patient's trust in them as professionals. For GDPs especially, this was felt to be the result of knowing patients over a long period of time.

> '…it's our role to look after them, to educate them, to care for their teeth, to treat them… but I think patients trust us and a lot of people actually see us as friends, a lot of the older population just like to come and see us just for a general chat, if nothing else.' (GDP9)

For community dentists, a sense of responsibility or obligation to help people

seemed to be ever-present, regardless of whether they had met the patient

previously or not. Some GDPs and community dentists gave examples of

bending the rules to help patients, when the rules of the PDC system conflicted

with their perceived professional responsibility.

> '… sometimes, I have bent the rules, and if it's a child, I will see them…
> 'cos they've come in, they're in pain, you're not going to send them away.'
> (CDS10)

A few GDPs (usually those who qualified many years ago), felt that it was

professional to shoulder all of the responsibility for their own patients' dental

care and to be skilled at providing technically more advanced treatments in

order to achieve this. They perceived some younger dentists as being too quick

to refer, due to their fear of litigation and their limited technical skills.

> 'I think the present graduates, I feel very sorry for them because, year by
> year, they're actually having less and less patient contact and when they
> go into foundation training they're just about legal…' (GDP1)

In contrast, the concept of shared responsibility was conveyed by recently

qualified GDPs and involved either referring patients or inter-professional

working. These participants emphasised their responsibility to know their

limitations and, therefore, to refer patients whenever necessary.

> 'Obviously I, also as a general dental practitioner, I wouldn't be able to
> satisfy everything the patient needs to get them to their… optimal oral
> health or, so I would sometimes need to refer them to my colleagues for
> second opinions or for further treatment and all that.' (GDP3)

Community dentists indicated that they discussed patients' needs with

colleagues, using their combined knowledge and experience to formulate a care

plan. They also gave examples of working with dentists and other healthcare

professionals from secondary care, in order to provide the most suitable care for

their patients.

> '…if I see somebody that I don't feel particularly happy with treating them
> on my own, I will speak to a senior colleague or one of our specialists,
> whether that's a paediatric or special care specialist…' (CDS6)

Occasionally, participants referred to a broader, social responsibility, in one of

two forms, as part of their roles as healthcare professionals. Firstly, community

dentists and a few GDPs identified a responsibility to provide dental services to

a community outside their place of work.

> 'So we have a very much a community role where we provide NHS
> services for the, for [town] and the wider community… because it's a
> rural community we very much try to embed ourselves within the
> community, we get involved with lots of fundraising things and fund
> things...' (GDP8)

This contrasted with other GDPs, who felt they only had a responsibility for

those patients who entered their practice building.

> 'I don't have any equipment for domiciliary care, dental care, I don't have
> any portable surgery to drive around in either, so those, the people that
> can't make it to my dental practice, I cannot treat.' (GDP5)

Secondly, some community dentists described a specific responsibility to be

alert to the possibility of patients experiencing, or being at risk of experiencing,

some form of harm in their lives, and to share this concern in order to safeguard

patients.

> '…and that's when we realised she wasn't talking about it being you
> know, a sort of a friendly setting, it was he was being bullied, so it, we
> was talking about teeth, but it just went down a different direction so… I
> don't feel my role is now just with teeth, some of the questions we ask,
> we ask about their social history…' (CDS3)

GDPs sometimes referred to their responsibilities as practice owners,

particularly towards their staff. Senior community dentists mentioned their

responsibilities as service leaders, which encompassed mentoring and

developing staff, as well as monitoring service provision and negotiating with

commissioners.

> 'At the moment, I'm leading a community dental service… things like
> GAs for paediatrics have sort of gone out of community dental services,
> so, in the last twelve months of being here we've brought that back into
> community dental services…' (CDS5)

5.3.1.3 Clinical autonomy

Many participants indicated that they strongly valued their clinical autonomy;

that is, their professional right to make clinical decisions about, and with, their

own patients, without the interference of other parties. Participants reported

that this gave a sense of control and independence which was extremely

important to them.

> '…I got just such a great feeling, you know, the first time one was
> actually given a patient on one's own, without somebody breathing down
> your neck, it was just like Christmas. You know, when I qualified and I
> was given my own list… I just wanted to work all the time…' (GDP7)

GDPs' considered sources of interference with clinical autonomy to include

dental corporates, CDSs, the wider NHS system and other forms of

bureaucracy, such as the Care Quality Commission (CQC). For some GDPs,

the level of bureaucracy necessary to maintain a GDS contract and meet the

requirements of CQC was felt to curtail their autonomy, and detract from their

professionalism, although some acknowledged the need for accountability, to

ensure patient safety.

> 'Yes, there's far too much interference from the CQC, so just trying to
> comply with ridiculous protocols and procedures and things. The number
> of completely pointless protocols that we have, it's just mind-blowing… I
> just think the professionalism's, gone from the, from dentistry.' (GDP9)

Dental corporates were perceived to limit dentists' freedom of choice and

therefore actively avoided by some GDPs.

> 'I deliberately, I suppose I'm attracted to a practice that does give the
> associate… a lot of lee-way on, you know, you do feel like your own
> boss… Because 'cos hearsay, I know things have changed for people
> that do work within corporates… but I, luckily, have avoided working for
> corporates, so it hasn't affected me.' (GDP2)

Community dentists had different perceptions of interference. As described

above, many senior community dentists held managerial and leadership

responsibilities, which conferred a sense of control. In contrast, for other

community dentists, the management of CDSs was sometimes felt to be distant

and out of touch. This was especially evident for generalist community dentists,

or after a change in commissioning arrangements. In such situations,

community dentists were frustrated by management decisions which, they felt,

prevented them from acting autonomously in their patients' best interests.

> '…you don't have much say, because everything has some sort of a
> manager above you and the manager above that manager, and all that,
> so not a lot, a lot of autonomy, so you just do what you've been told to do,
> you can't do anything more. And you like to do more, but you can't…'
> (CDS10)

5.3.1.4 Allegiance to the NHS

The majority of participants talked about the strength of their connections with

the principles of the NHS. This was most apparent with GDPs, as they often

defined their dental practice, and their own personal workload, by stating, first of

all, whether they provided NHS dentistry, private dentistry, or a combination of

both types. Some GDPs made it clear that they had absolutely no allegiance to

the NHS. This was most evident in GDPs who had developed private dental

practices after working predominantly within the GDS contract in the past,

although one GDP with a significant continuing NHS workload expressed great

resentment of the NHS.

> '…would I advise anyone to go into the NHS? No, don't join the NHS. I,
> my son's doing dentistry and the last thing I want him to do is go into the
> NHS. I think as soon as you can get out of it, the better you are…'
> (GDP4)

In contrast, several GDPs expressed a strong sense of commitment to the

principles of the NHS and explained how this created conflict in their careers.

Two principal dentists had wrestled with the moral implications of converting

from NHS to private practice, decisions in which they felt they had to prioritise

their professional obligation to deliver high quality dentistry.

> '…I fundamentally believe in the NHS, and that the general public should
> be able to access NHS dentistry… we felt we were being penalised for
> doing good dentistry… we tried to negotiate with the PCT… but they
> weren't willing to agree to that, so we left…' (GDP6)

Both associates expressed concerns about their limited capacity to deliver NHS

dentistry under the current contractual arrangements. Salaried trainees were

aware that were delivering NHS dentistry in practices where associates also

provided some private dentistry. These participants gave relatively neutral

accounts of such arrangements.

Participating community dentists were usually directly employed by the NHS to

provide equitable access to dentistry and were also, in some cases, committed

to the specialties of Special Care or Paediatric Dentistry. The participants

provided no private dentistry themselves and made no mention of any demand

for such specialties in the private sector. Whilst they referred to the variation in

GDPs' commitment to the NHS, they did not directly refer to their own

relationships with the NHS. Instead, their commitment to the NHS was implicit

in their responses.

'I think that if the future looks better for NHS dentists then perhaps, after… dental core training they won't go elsewhere… they might be willing to stay in the NHS.' (CDS11)

5.3.2 The Nature of Care

Almost all participants declared that providing a high quality of care to their patients was important to them, although some felt unable to achieve this standard, due to the constraints placed upon them. However, participants appeared to differ in their interpretation of the nature of the care they aimed to deliver. Whilst some participants reportedly placed considerable emphasis upon exemplary technical skills as a form of care, others indicated that they placed importance on a holistic, patient-centred approach to care, and some participants appeared to value of both concepts of care. It should be noted that all participants appeared to be trying to deliver a wide range of dental treatments, to suit patients' individual needs; it was their perceptions of the relative value of these two aspects of quality care which seemed to differ.

5.3.2.1 Holistic care of the patient

Most community dentists and several GDPs clearly prioritised taking a holistic approach to each patient's dental care, with a focus on human interaction, establishing what a patient's expectations might be and offering dental care which would be acceptable and feasible in the patient's circumstances.

> '…we can [refer] to a restorative service but it's divided into periodontal [gum disease], restorative [repairing teeth], endodontics [root canal treatment], and I don't feel people come in boxes like that… So we can provide an holistic care, I think, for the people, that isn't always the ideal from a clinical dentistry point of view but meets their needs as a person.' (CDS2)

5.3.2.2 Technical skill of the dentist

Many GDPs talked of their intention to provide their patients with as extensive a range of dental treatments as they were qualified to provide, to the highest possible standard of technical skill. This interpretation of the nature of care focused on the dentist, rather than the patient, in that the emphasis was placed upon demonstrating mastery of the manual skills and techniques which the participants had learned at dental school. These skills primarily related to treating disease by removing teeth or restoring missing or damaged teeth, rather than upon preventing or diagnosing oral diseases.

> 'I don't know the underlying reasons but I get a lot of referrals from National Health dentists referring private endo [root canal treatment] to me, or other restorative work… and I'm not a specialist but I do offer a wide range of general dental practice…' (GDP5)

5.3.2.3 Facilitators for delivering high quality care

Community dentists and GDPs described several aspects of CDSs which facilitated the provision of high quality dentistry with a holistic focus. In particular, community dentists were felt to have more time to spend with patients, which they could use to help patients to cope with dental visits and procedures.

> 'I'm fortunate that I probably just have more time to give to, 'specially children… which perhaps in general practice is a little bit more of a luxury… whereas I can afford to take my time and do one filling at a time, for example, to get that patient dentally fit… then avoiding them having to go through sedation, general anaesthesia…' (CDS6)

Several senior community dentists explained that their services could provide various types of sedation, as well as general anaesthesia (GA) services, for children and adults. They explained that having the potential to tap into this

range of facilities meant that patients could receive all their care in a

coordinated way, through a single service.

> '…we don't have a children's service and an adults' service, as such,
> we're as integrated as we can be. We have different skills within the
> whole service, but if you go anywhere else… you're either with a
> paediatrician or… you're with adult services and I think sometimes
> people drop through gaps. I'm quite proud to be able to say that they
> don't in our dental service…' (CDS9)

Additionally, links with other healthcare professionals were perceived to

promote individually-tailored dental care planning and treatment beyond CDSs.

This inter-professional work included having closer connection with specialist

dental services in certain hospitals, or teaming up with other healthcare

professionals to provide multidisciplinary care for a patient under a single

general anaesthetic. Specialists were particularly proud of these links, and the

patient benefits which this collaborative work could bring.

> '…I do a lot of multidisciplinary… a lot of things I get on with myself but,
> you know, I can go to an orthodontist for an opinion… and, I do always
> try to attain a gold standard and that's very nice for, me, and for my
> patients…' (CDS1)

For GDPs, having more time to spend with patients was also felt to improve

their ability to achieve a high quality of care. In general dental practice, the only

means to achieve this was felt to be working under private arrangements, in

which more time could be afforded for each appointment, in comparison with

NHS arrangements.

> '…being totally private, we can't see children for free or on the NHS…
> But, so I don't have that many children and young families on my books.
> I do have some, where I treat the children successfully myself, and so far,
> none of those children have needed a referral, so far, because I have
> been able to take the time and, and effort it takes to get certain
> treatments done.' (GDP5)

5.3.2.4 Barriers to delivering high quality care

Some community dentists expressed their frustration that commissioning

decisions were impacting upon their ability to maintain strong working links with

other healthcare professionals. This was felt to disrupt efforts to deliver holistic

dental care.

> '…before, it wasn't a problem, because we were all under the same trust
> and now it's like, 'well who's going to be accountable for this?'…' (CDS1)

Others explained that services involving GA and some forms of sedation were

now commissioned from a different provider, meaning that they often had to

refer their patients on to another organisation, with patients waiting a second

time before they received care. This created a disjointed situation in which

community dentists felt unable to offer their patients everything they were

trained to provide.

> '…when it comes to more complicated patients we're not, we can't treat
> them here, we're simply passing on to a teaching hospital so that is a big
> area of concern. One, we are losing the skills, secondly the patients are
> not happy with that arrangement, being made to travel long distances for
> something which we could have provided…' (CDS4)

The presence of a tertiary dental service nearby, in the form of a dental hospital,

was usually perceived to result in further fragmentation of services, rather than

collaborative working.

> '…I have heard, on occasions, that there is also not a seamless journey,
> because people are perhaps seen in community dental services,
> externally, and then there's the secondary referral service to the hospital,
> where they have to be reassessed again… I'm not sure that always
> provides the best treatment for the patient.' (CDS2)

For GDPs, one major barrier to providing both aspects of high quality care was

felt to exist: the GDS contract. The problem with the contract was perceived to

be the disconnection between the quantity of treatment provided and the

number of UDAs credited to the GDP in the GDS contract and, therefore, the payment received by the GDP. This curtailed the range of treatments and the dental materials GDPs were willing to provide and use. It also meant that GDPs felt they were unable to spend as much time with NHS patients as they would have liked, which constrained the amount of support they could offer those patients. GDPs were acutely aware of the connection between time and money, which is discussed in section 5.3.4, and felt that the GDS contract did not value their time, causing them considerable frustration.

> '…it's down to money, unfortunately… so if you're a practitioner that seems to want to encourage and accept this type of patient, they're actually often a more time-consuming patient, costs the practice more money because of the time spent per appointment, and it's a shame that… you're not possibly remunerated to allow you to do that.' (GDP2)

5.3.3 Disconnection

Most participants indicated that communication between dentists working in different PDC settings was very limited. GDPs perceived CDSs to be impersonal, rarely knowing the names or faces of dentists in their local service. Many felt that the onus was on the CDS to provide them with clear information about what the CDS could offer their patients. General community dentists did not perceive it to be their role to engage with GDPs, beyond rejecting referrals or discharging patients, and some were unclear about how GDPs could access information about their services' referral processes. Several senior community dentists reported having tried to engage with GDPs but had struggled to contact younger GDPs, and those new to their area, who did not use conventional professional networks. Notably, neither independent GDPs, nor community dentists, felt that they had any significant connections with dentists working in corporate dental practices.

5.3.3.1 Navigating referral pathways

With the exception of senior community dentists, who were able to offer precise details of their referral systems, most participants described referral systems which were characterised by local variation, strict processes and vague eligibility criteria. In some cases, general community dentists were unsure how GDPs accessed information about the referral process for their own service, or how referral documents were triaged.

> 'I don't know how they know in the first instance. They all seem to know, and it is on our website, I think it's [website address], or something like that, I'm sure I can show you, errrr, mmmm, pass.' (CDS8)

For GDPs, those who rarely referred patients were unsure about current processes. Those who were new to an area obtained information from colleagues and, more recently, searched for local referral services on the internet.

> '…in the practice they have those forms, and through enquiring with the other dentists and seeing how they would do it, I learned bits from here, bits from there… when I googled the community dental service in [county], there were kind of clear pathway forms to download and send through.' (GDP3)

Several GDPs were frustrated that they did not know the names or faces of the dentists to whom they were referring their patients, nor was it clear to them whether these dentists had specialist status or particular training and experience. Some GDPs tried to make direct contact with a dentist whom they were sure had the relevant skills, with variable success.

> 'I think the referral process is horrendous. I think it's absolutely diabolical. It doesn't work… I liked the idea of knowing who the consultants are at the hospital, writing to a consultant who I know… and doing a direct referral. Now there's a triage system, you've no idea where the, who they're going, who they're seeing, it could be anybody.' (GDP4)

Even after making a referral, feedback from community dentists was felt by GDPs to be critical, impersonal and belated. Some GDPs were concerned that referral documents might be triaged by administrators, rather than dentists. It was not always clear to GDPs why a referral had been rejected and some GDPs surmised that trivial errors of documentation were bounced back to them in an effort to stall patients before they were recorded on waiting lists, delaying care for patients who had been referred legitimately.

> 'What would be good would be… to have a letter just to say 'we've received the referral, the patient's been placed on the waiting list…' and then we can communicate that to the patient if necessary… whereas we're just left in the dark all the time.' (GDP9)

GDPs generally felt that the responsibility for explaining and promoting what was on offer from the CDS lay squarely with the community dentists. However, GDPs reported that no such information had been received. Some negative perceptions of community dentists, and the CDS as a whole, persisted.

> 'The perception is it's poorly managed. And that people are lazy… It's just as if the dentists aren't really engaged with really wanting to do any work.' (GDP9)

Equally, whilst acknowledging that many GDPs were working hard for their patients, community dentists were sceptical about some GDPs' motives for referring patients.

> 'I don't wish to generalise but… you tend to have the same offenders, you see the same [referring dentists'] names, and some of them, the things that they'll be asking are inappropriate… and you know it's just kind of, like, 'well I don't really know what to do with this patient so I'm going to flick them to you'…' (CDS1)

When receiving referral documents, community dentists were concerned to ensure that they obtained all the essential information about a referred patient. The information they perceived to be essential included diagnostic information,

medical history, radiographs and details of attempted treatment. Several

community dentists acknowledged that these requirements were extensive.

However, this information was considered mandatory because, they reported,

without it, there was potential for patients to be allocated to dentists or

community sites which would be unable to help them, thus incurring an

unnecessary wait for the patient.

> '…I think it gets sent back if it doesn't have all the essential information on it because… more often than not, that child will end up having sedation or a general anaesthetic, so they insist on having all the essential information on the referral form, which is triaged by our paediatric dentist…' (CDS11)

Community dentists recounted their exasperation at some of the referrals which

they had received, involving requests for treatments which were not provided by

their CDS, referrals for patients who did not meet that service's eligibility criteria,

or inadequate information. Many suspected that some referrals were sent with

the aim of off-loading patients who could have been treated in general dental

practice.

> '…I've no idea why… maybe he doesn't like making dentures, I don't know, but I thought, twelve UDAs? I thought he'd have bit her hand off!' [laughs] (CDS1)

5.3.3.2 Coordinating patient care

Two main forms of communication between primary care dentists were

described: GDPs sending requests for assistance in the form of referral

documents, and community dentists responding with feedback. Examples of

written feedback included letters rejecting referral requests before treatment

was provided, as well as letters discharging patients after treatment.

> '…once we've assessed the patient, we write a letter and say what we found, and what our provisional treatment plan is and then at the end of

> treatment, what we've completed and... why we're discharging the
> patient at that point, but, on the phone it's not very often.' (CDS3)

Some community dentists also telephoned GDPs, usually when they wished to

reject a referral request and suggest an alternative solution. This was more

commonly described by senior community dentists as a means to encourage

GDPs' confidence to perform some, or all, of a patient's care in practice. In this

situation, participants reported that they would present the GDP with solutions

to overcome the perceived clinical problem in general dental practice and offer

to share care, should additional support be required. Some general community

dentists felt that direct contact with GDPs was not part of their role, and that

they should communicate concerns about referrals to senior colleagues for

further action.

> '…if we got a referral from this practice, from this dentist, we just had to
> make this known to our senior [colleague], it was, kind of out of our
> hands…' (CDS8)

Senior community dentists were also keen to engage GDPs to develop formal

shared arrangements between GDPs and CDSs, specifically proposals to

create Managed Clinical Networks (MCNs) at a regional level. However, as

described below, they were experiencing difficulties with contacting GDPs.

> '…on our Managed Clinical Network for Special Care Dentistry… a lot of
> that Special Care Dentistry is done in general dental practice, and so
> therefore general dental practitioners should be involved within the
> Managed Clinical Network. The difficulty is getting them to the meetings.'
> (CDS2)

In areas where referral services were fragmented across CDSs and other

organisations such as dental hospitals, connections between different referral

providers were presented as being equally poor, with no direct communication

routes available. Some community dentists explained that they had to refer

patients via a Referral Management Centre (RMC), just like GDPs, despite

having already provided some additional assessment and treatment on referral

from a GDP, and their patients experienced equally long waits without feedback.

> 'I think the bidding arrangements changed so it's all going to a teaching
> hospital, so someone with a really difficult learning disability or profound
> disabilities… we can see them for, maybe, a check-up… but we can't
> treat, we would then refer them to a teaching hospital… it's not as
> streamlined as it used to be in other trusts.' (CDS4)

5.3.3.3 Professional (dis-)engagement

It was evident that many participants felt isolated from other dentists;

sometimes even from their own colleagues. Certainly, many community

dentists were conscious that they were disconnected from nearby GDPs, and

many GDPs were equally unfamiliar with the names and faces of their local

community dentists, as mentioned previously.

> '…there are long waiting lists, I've been waiting for three months now,
> and… so far I haven't had any letters back, so, I haven't actually met,
> formally or informally, any of these community dentists, I'm afraid.'
> (CDS3)

Participants conveyed a sense that dentists only maintained contact with other

dentists working in similar settings. Sometimes these informal connections

enabled participants to offer and receive assistance from other dentists. Others

found that they tended to meet similar dentists at CPD courses.

> 'There aren't as many social events as there used to be… The local
> deanery… they do organise courses, which I tend not to go on. I tend to
> use the Denplan courses, so I generally don't see other NHS dentists.
> Most of the dentists I'll come into contact with would be private dentists.'
> (CDS9)

Occasionally, social connections with dentists from other settings were

mentioned, and usually these friendships or relationships had been established

much earlier in participants' careers.

'…several of my friends, who I went to university with, for example, are all, mostly in general practice… it's quite interesting to have a chat with some of them… 'cos you do have a tendency to fall into a bubble, in community, of 'oh this is what we do' and not see the other side.' (CDS6)

Formal professional networks, such as Local Dental Committees (LDCs) were usually mentioned by late-career participants; however, they recognised that they could not reach dentists who worked for dental corporates via this traditional route.

'Unfortunately, the people who turn up to LDC meetings are, on the whole, your practice owners… What you don't get is the associates working in the corporates, and it's the corporates that are the ones sending in the silly referrals. It's the corporates that have the associates that change every six months.' (CDS12)

A few participants took an active role in local and national professional groups and, occasionally, dental politics. Three participants reported that they had been involved with the BDA. For those involved, speaking up for patients and the dental profession was a very important aspect of their professional roles. However, it was acknowledged that these efforts did not always produce results.

'I've always been quite interested in the political side… I get frustrated when people moan about the NHS, or… the lack of funding, but don't do anything about it, so I haven't necessarily managed to do anything about it, but at least I've put my money where my mouth is…' (GDP8)

A sense of demoralisation and apathy was noticeable among several GDPs and even more community dentists. GDPs seemed to be tired of change, in the form of increased interference in the running of dental practices and reduced clinical freedom.

'Why do I stick with it? I think it's what you get used to. It's like a lot of things in life, you do things not because you think it may be the right thing to do, you've got so used to doing it you think, well… carry on with it… change, I'm getting too old for change.' (GDP4)

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For general community dentists, many felt they were becoming deskilled because of restrictions on the range of services they were permitted to offer patients. In addition, they felt demoralised and frustrated that they were unable to provide timely care for their patients, due to chronic under-staffing and increasing demand upon services. They also felt unable to change and improve the situation.

> '…it's a different kind of skill mix you need when you're working in special care and, unless you have an exposure to different settings, or, you don't get a more rounded approach to deal with patients… One of the problems we have at the moment is there are no opportunities… to develop those skills.' (CDS4)

Although specialist community dentists demonstrated many examples of improving services, some were concerned about the future, given the changing demographics and needs in society, and the changes which were occurring in PDC commissioning. This latter concern was shared by the more politically engaged GDPs.

> 'I would like to see… some shared care between general dental practice and community because… there's going to be so many more people living with disability and medical conditions, that everyone's going to have to provide some sort of service for them, I don't think special care community services can hope to provide for everyone.' (CDS11)

5.3.4 The Business of Dentistry

Participants consistently described the collective purpose of general dental practices, and the role of GDPs themselves, in terms of providing the majority of dentistry for the majority of the population. Whilst many of the participants who were GDPs emphasised their focus on quality dentistry, for all of the associates and principal dentists, the financial bottom line was equally fundamental. When achieving quality care and running a business were perceived to be mutually incompatible due to the GDS contract, in which time was perceived to cost the

dentist money, participants reported considering alternative means to achieve

both aims. This had generally resulted in participants working entirely in the

private sector, or providing NHS dentistry for a very limited number of patients.

GDPs perceived that some patients could not be treated efficiently within the

GDS contract, because they needed more time or support during procedures, or

they required a considerable amount of routine dental treatment, or they were

predicted to be unreliable attenders. Although a few GDPs indicated that they

were prepared to absorb the cost of providing uneconomic, but morally

important, care for patients on an occasional basis, they emphasised that this

was unsustainable on a wider scale.

5.3.4.1 The dental practice as a business

It was evident from many participants' descriptions, that general dental

practices were, first and foremost, considered to be businesses in which GDPs

were purveyors of quality dentistry. The financial implications of this

arrangement were such that they took precedence at all times, as principal

dentists and associates indicated they were well aware that staff had to be paid,

overheads covered and materials purchased. It was also recognised that

bureaucrats had to be appeased in order to retain the right to operate as a

business within PDC.

> 'So unfortunately, or fortunately, what you get paid will also move you in
> a certain direction in how you treat patients. It's inevitable… at the end
> of the day, the practice has to make a profit and you have to make a
> living but I think the way the system is, it doesn't work well enough.'
> (GDP4)

5.3.4.2 The influence of the GDS contract

The GDS contract was reported to have produced many negative

consequences and constraints affecting GDPs and their patients, some of which

also impacted on CDSs. Some participants gave examples which showed how

they felt patients' access to NHS dentistry could be restricted by the local

contractual arrangements.

> 'I've finished my UDAs this week. That means that, so I won't be seeing
> patients 'til April unless it's an absolute emergency, so do you not think
> that's a, is that not a shame?... And that's why this system doesn't work.'
> (GDP4)

Under the previous GDS contract, one GDP described a business strategy

which involved systematically withdrawing access to NHS dentistry for adults

who were exempt from paying NHS charges, at a series of dental practices he

had owned.

> 'I had five years there as the principal of a two-man practice with a
> hygienist, well, mainly within the health service, though, fairly early on,
> we opted out [of providing NHS treatments for] fee paying adults out of
> the health service.' (GDP7)

The GDS contract was also perceived to produce negative consequences for

GDPs who continued to try to work within it. Participants who were committed

to providing preventive care for NHS patients, felt disadvantaged by successive

GDS contracts, in which they believed preventive care was not valued.

> '…I'm not bashing the Nash [taking advantage of the NHS system], and
> we were actually downgraded, so our UDA values got down to seventeen
> or eighteen [pounds per UDA completed], whereas those who were
> churning out lots and lots of restorations, fillings, crowns, were up in the
> twenties, even the high twenties. So it's been a very un-level playing
> field…' (GDP1)

Participants recognised that the GDS contract did not place any value upon the

time dentists spent with patients; nor, in the 2006 contract, did they sense that it

reflected the diverse treatment needs of patients with good or poor dental health.

Together, these issues generated incentives and disincentives for GDPs.

Consequently, participants were aware that the GDS contract effectively

required GDPs to act in patients' best interests, regardless of any conflict this would create with the financial interests of the business.

> 'Seventy five pounds to take the tooth out, it's ten minutes to do that, or an hour and a half to do the root treatment, I mean, human nature is that people are going to look at it and think, 'do you know what, if this patient's not that bothered, why should I encourage them to keep the tooth?'' (GDP4)

Some GDPs appeared to try hard to spend the extra time necessary for some NHS patients; however, they acknowledged that this could only happen on an occasional basis, as it was effectively being subsided by the income from other dental work.

> '…the odd patient that you would call a community, typical community patient, 'cos it's the odd one… I can treat them within practice… it doesn't matter the time I've spent, whatever, on that patient, you couldn't have a day list of patients like that but the odd patient… I treat within practice, yeah.' (GDP2)

The potential for some GDPs to manipulate a contract for their own benefit through supervised neglect, or by off-loading patients to CDSs, was well-known. One GDP recalled, sympathetically, how he had provided routine dentistry for referred patients when working in a CDS in the past, when perhaps patients could have received similar care from their GDP, had the financial implications been different.

> '…a lot of the time they were referred in for RA sedation, but you ended up treating them without… but I could see it from the other side as well… you have to spend the time to know that it, that you can do something without RA… I do see the problems in practice, because it's the time thing, and time is overheads and money…' (GDP2)

The tactic of separating several items of dental treatment over a period of time, and thus claiming separate payments, known as gaming, was a particular concern for several senior community dentists.

> '…and then you'll get those who just game. And it's the gamers that shock me, really, because they're, it's not like they're playing the game once, the people who game repeatedly game, and the people who don't repeatedly don't.' (CDS12)

In view of all these constraints and consequences, many participants explained why they had elected to work primarily, or entirely, on private terms. This enabled them to control the business income and ensure they could cover expenditures and provide high quality dental care to patients. Two participants described how they had converted from NHS to private practice in direct response to the 2006 GDS contract.

> 'So it was a difficult decision, didn't sit easily with us, because we believe in NHS dentistry for everybody but it was just too difficult, financially… and secondly to provide the level of dentistry that we wanted to for our patients.' (GDP6)

One participant had chosen to switch from general dental practice to a salaried post in a PDS pilot scheme, rather than risking his health by continuing to work increasingly long hours on what he felt was a treadmill.

> 'It's like being in high street practice, really, just without the Sword of Damocles, in the form of the UDA, hanging over your head.' (CDS12)

Overall, the GDS contract was felt to undermine GDPs' abilities to deliver the quality of dentistry of which they felt they were capable, in a financially sustainable manner.

5.3.4.3 Perceptions of the role of general dental practices

Given the business arrangements described above, participants were pragmatic about the role of general dental practices within PDC. In essence, participants were in broad agreement that general dental practices should provide dentistry for the majority of patients, including examinations, diagnosis, prevention and treatment, referring patients only when necessary.

> '…my view on that is to be able to deliver what most people traditionally regard as dentistry, as much as I can, by myself, within my capacity…' (GDP5)

As described in relation to dentists' professional roles, recently qualified GDPs considered themselves to have more of a gatekeeper role, facilitating patients' access to other dentists with more extensive skills than their own, by making referrals.

> 'I think probably during this [foundation] year… I didn't realise how many referrals I would do… in a sense, in practice you are very much limited into what's in your room, all of the facilities that you, the resources that you have there…' (GDP10)

Conversely, late-career GDPs tended to feel that they had the experience and skill to provide almost all the advanced dental treatments their patients might require, without resorting to referral. Indeed, several accepted referrals from other GDPs.

> '…I tend not to refer anyone to community dental care, I don't know about my colleagues. I don't think it's a very common situation.' (GDP1)

Regarding patients who might need to be referred to CDSs, some participants commented that they very rarely encountered such patients, which they attributed to working solely with patients who could afford private dentistry.

> 'I think that perhaps the way I'm working, I don't get many of them coming through the doors, for various reasons. I would imagine that they typically go to the National Health and get referred to the community service by a National Health dentist. Maybe that could be it.' (GDP5)

5.3.5 Obscure Rules

Participants' perceptions of the purpose of the CDS and the roles of community dentists were inconsistent, even between community dentists themselves. Some participants depicted specialist-led services for adults and children with complex additional needs, which rejected referrals for more straightforward

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situations. Other participants described working in services as general

community dentists, providing routine dentistry for socially marginalised people

and referring patients with complex needs to other services. In particular, the

role of the CDS in delivering domiciliary care for frail, older people, sedation for

anxious people and routine treatment for people with extensive dental disease,

appeared to be contested.

Some senior community dentists described what they felt were successful

organisations, providing seamless patient care. However, most GDPs, and

some community dentists, claimed that their local CDS was chronically under-

resourced, or failing to provide the quality and range of services which they

expected for patients. Participants reported acceptance criteria and service

provision which appeared to vary between, and sometimes within, services, for

reasons which were often unclear, but were sometimes thought to relate to

commissioning decisions. Several GDPs felt they had encountered obscure

and confusing rules whilst attempting to navigate referral processes on behalf of

their patients.

5.3.5.1 Variation in community dental services

Although several senior community dentists portrayed well-organised,

enthusiastic and effective CDSs, numerous community dentists, and several

GDPs, felt that some services were inadequately managed and resourced, thus

failing to provide a quality services to patients.

> 'It got quite mixed up and complicated because there was a merger in
> the services, the triaging was not streamlined so those kind of things
> affected the delay… what's even more frustrating than that, sometimes
> we do accept them but then we can't do any treatment, we then have to
> refer them to another service. That annoys patients, and that's
> understandable.' (CDS4)

Several specialist community dentists explained how their organisations concentrated on providing specialist-led services for children and adults with special needs. They described how this was benefitting patients with complex medical conditions and severe impairments. They commented upon how they had achieved this through their own efforts, by reorienting organisations, recruiting specialised staff and developing niche services.

> '…then started developing a bid for PDS, for primary care, 'cos we were working in an area where there was, lack of NHS dental access, so I got involved in that. So the service, when I first managed it, there were twenty-five staff and when I left… we had something like two hundred staff…' (CDS5)

In contrast, other organisations were described as being primarily staffed by general community dentists, whose experience was valued. Senior community dentists reported that these dentists had acquired considerable expertise, although the participants in this study who were general community dentists showed no aspirations to achieve specialist status. Despite the fact that they were not specialists, some participants mentioned that general community dentists were providing treatment under GA or conscious sedation in some CDSs.

> 'We don't have many specialists. Most of our dentists are, I'm very lucky, I have a large number of very experienced community dentists. Now in our area, we haven't gone out to tender [yet]… but when we do, most of our service will be aimed at level two treatment. That's where, that's where most of, well, nearly all of my clinicians, that's where their skills lie.' (CDS9)

However, other general community dentists worked in organisations which provided a very limited range of services to patients, and they expressed their frustration at being unable to utilise all of their skills for patient benefit, to the point where some felt they were becoming deskilled.

> '…we do treat patients under inhalation sedation but I am also trained in IV sedation… but unfortunately our service doesn't have that facility so, and no general anaesthetic services, we refer out to other hospitals for general anaesthetic.' (CDS3)

Participants described organisations which were distributed throughout England. Some were depicted as being situated entirely within metropolitan boroughs, whereas others appeared to cover predominantly rural counties, containing one or two urban areas. In metropolitan areas, community dentists were aware of certain deprived or socially excluded communities, for which they tried to offer support, as a safety-net service.

> '…it could be that they have complex social issues… they've recently moved into the area, they can't, English isn't their first language, they could be asylum seekers… maybe patients who are irregular attenders, so a general, general dental service would be reluctant to take them on as a regular patient…' (CDS7)

In rural areas, CDSs were presented as being distributed across multiple sites to try to improve access, however, it was acknowledged that this did not completely resolve access issues, particularly for patients with very complex conditions, who needed specialist care.

> '…it's quite easy to deliver, I think, services to a conurbation, there's lots of people but they're all nearby. Whereas [area] is… very rural, there are pockets of deprivation but there's an awful lot of space in between…' (CDS9)

In addition, GDPs found it irritating that, for reasons which remained unclear to them, their patients might be offered appointments in geographically distant (and inconvenient) locations.

> '…with the challenges that we have in the rural communities… and the difficulty we have with transport, and the added burden that that creates for particular groups in society… not every family owns two cars and can just jump in their four by four and drive 50 miles to access services.' (GDP8)

GDPs and community dentists were aware that CDSs in adjacent counties or boroughs provided a different combination of services for patients, though the reasons for these differences were not usually felt to be transparent. In some cases, services which were described as core work in some services, such as paediatric dentistry, inhalation sedation, intravenous (IV) sedation and GA, were reported to be unavailable in other areas.

> '…I mean at the moment the only form of sedation we can provide is inhalation sedation, which is limited to children and a certain number of adults. We badly need at least a minimum of intravenous sedation under supervision of a hospital lead, or someone in a specialist role…' (CDS4)

Services for particular patient groups, such as domiciliary services for people who needed to receive dental treatment at home, or sedation services for anxious or phobic people, were not consistently considered to be included in the CDS remit. Some community dentists claimed that those patients were, or should be, provided for elsewhere.

> '…it doesn't need specialist care… going to somebody's house to replace a set of dentures for them they've lost them in hospital doesn't really need the community dental service to do that…' (CDS5)

Others described blurred boundaries between the remit of their own service and that of other commissioned services, in providing particular types of care.

> '…although we do not hold the domiciliary contract for the whole area, we do see the ones which are the more medically compromised among the domiciliary patient group 'cos they, invariably, they would be sent back to us…' (CDS4)

As described previously, although there were examples of collaboration with dental hospitals, these were exceptional, and it was generally felt that the presence of a nearby dental hospital led to fragmented care pathways and poorer patient experiences. In areas without dental hospitals, CDSs were often

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reported to be commissioned to provide a wider range of services, including GA,

enabling community dentists to take their own patients through a seamless care

pathway without disruption or delay.

> '…we actually see the patient through all their patient journey, and their
> care pathway, so it's quite a seamless transition…' (CDS2)

5.3.5.2 Variation in referral processes

This local variation, depicted in the services commissioned from CDSs, also

extended to their referral systems. Although most participants described a

system involving a detailed referral proforma, rather than a letter, some areas

apparently required an electronic submission, whereas others used paper

documents.

> 'So we have this pile of paperwork… I'm completely digital, so I get a
> beautiful digital image, I have to print it off and fax it…why would you not
> email it?' (GDP7)

Many systems appeared to involve a RMC but accounts varied regarding the

involvement of administrators or dentists in allocating patients to different sites

and staff.

> '…all the referrals go into the head office, and there is an administrator
> actually sees through the referrals that come in, and then depending on
> the address of the patient, they get allocated to the different clinics…'
> (CDS10)

As mentioned previously, GDPs and some community dentists were unsure

where to obtain information about referral processes, although participating

senior community dentists described having put considerable time and effort

into the development and distribution of referral guidelines. Updates to

guidelines and documentation, intended to streamline referral processes, were

sometimes perceived to have caused additional problems. Whilst community

dentists felt frustrated that GDPs did not complete the carefully designed forms

correctly, GDPs were equally irritated by the handling of minor documentary

errors.

> 'They keep changing the referral form so that whenever you make a
> referral… they always hold on to it for a couple of weeks and then return
> it to us with minor administrative error… there's a major, real perception
> that all the community dental service is doing is delaying the point at
> which the person goes on to the waiting list.' (GDP9)

Participants' descriptions indicated that different services adopted different

methods for defining patients' eligibility for referral, with some using algorithms

and others taking a more flexible approach. Although some community dentists

suggested that referral guidelines were designed to allow flexibility, most GDPs

felt that guidelines were often applied rigidly, creating obscure rules. It

appeared that implementing guidelines tended to reduce the range of patients

for whom referrals could be accepted by the CDS. For example, in some

services, it was considered essential that GDPs would attempt to treat almost

all patients prior to making a referral, which could be rejected without

documentary evidence of the attempt. However, in other areas, attempting

treatment in general dental practice, particularly for children, was felt to increase

the risk of patient anxiety in the longer term. Consequently, in those areas,

community dentists reported that this was discouraged and was not a

prerequisite for referral.

> 'I haven't received any complaints yet from patients about this long
> waiting time, but it is often frustrating when some referrals come back to
> me with refusals, saying that it is not… justified to do that referral, or
> there is not enough evidence of attempted treatment … and, I think, also
> causes some frustration for the patient, because they have to wait even
> further.' (GDP3)

Community dentists often described referrals as being inappropriate, giving

examples involving patients whose needs or conditions were felt to be on the

borderline of the eligibility criteria, and potentially responsive to relatively simple

solutions such as spending some time acclimatising the patient before

attempting treatment in general dental practice. Community dentists reported

that they would, sometimes, reject these referrals at a triage stage without

seeing the patient. Community dentists were particularly critical of

discrepancies in referral documentation, especially when they felt patients

presented for assessment with considerably better coping skills than the

documents suggested. If a borderline patient did receive an assessment,

community dentists described how they exercised their autonomy in deciding

whether to proceed with a course of treatment, or not. Community dentists

appeared to be conscious that it was not their role to provide routine dentistry

for routine patients. However, when they felt that they could not trust the GDP

to accept responsibility, they explained that they had to consider the risk that

the patient may not receive any treatment outside the CDS.

> '…they'll send them in saying, you know, 'multiple caries and child is
> uncooperative', and when you get them in, and the dentist gets speaking
> to the parents, they'll say, 'well he never tried!', and, and the child turns
> out to be not in the least bit frightened. What they wanted was they
> didn't want to have to see a child with six carious teeth. So that there are,
> there are plenty of inappropriate referrals…' (CDS12)

In addition, community dentists expressed concerns about referrals which

displayed inadequate diagnosis and treatment planning, as this could result in

misdirection of the referral, delaying a patient's care. However, they also

indicated that they might choose to alter patients' treatment plans from those

provided by GDPs. Some participants described how services used a triage

system to identify and prioritise certain patients, who were felt to need the most

urgent attention, such as very young children with extensive dental caries,

whilst in other areas, participants indicated that a strict sequential order was

considered preferable.

> '…it's all done in order… they're not queue-jumping someone else. They
> are assessed… an appointment made for an oral health education
> appointment and then they have to wait for an appointment for a GA…'
> (CDS8)

5.3.5.3 The impact of resource limitations

Chronic under-resourcing of CDSs was a common criticism, raised by many

participants. Waiting lists were perceived to be one of the main outcomes of

these problems, and it was widely acknowledged that this impacted on the

overall quality of the service provided to patients. Community dentists

presented waiting lists as more of a concern when they felt unable to influence

and improve matters.

> '…I think the biggest concern [parents] have is the waiting times to get an
> appointment for an assessment and unfortunately, because we have
> such a high level of children being referred with such high caries rates
> that require… general anaesthetics, for example, then the wait for that is
> also long…' (CDS6)

The increasingly strict application of referral guidelines and eligibility criteria was

presented by some community dentists as being their only means to control

demands upon services. Perceptions of persistent under-staffing meant that in

some services, simply achieving normal staffing levels was felt to be an

ambitious target. In others, certain elements of the service had reportedly been

withdrawn as a result of insufficient staff.

> '…we used to take a mobile dental unit into homeless projects, just, since
> we've been taken over that no longer happens, so we just go into centres
> for homeless people and try and facilitate them to come into one of the
> clinics…' (CDS11)

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In one area which incorporated a large dental access contract alongside its

CDS, a participant described how the former contract was subsidising the latter

financially, in order to maintain the CDS. Even specialist community dentists

were concerned that capacity would be insufficient to meet increasing future

demands.

> '…we do half the amount of general anaesthetic sessions that we did,
> so… the wait list is just gonna get bigger and bigger, unfortunately,
> because everything's more expensive, because the hospitals are
> charging a lot of money to go in and do the lists… which we didn't ever
> have before.' (CDS11)

5.3.5.4   *The impact of commissioning*

Organisational change also presented problems for some community dentists,

who described paralysis when commissioning decisions were imminent,

followed by significant changes to services resulting from commissioning

decisions. Overall, commissioning was perceived to disrupt and fragment

patient care.

> '…what the service is going to look like in a year's time, we don't know…
> in a way it is paralysing, because you can't plan for the service further
> ahead, it's all pending this bidding outcome… when it comes to more
> complicated patients… we can't treat them here, we're simply passing on
> to a teaching hospital, so that is a big area of concern…' (CDS4)

Commissioning decisions were perceived to have long-lasting effects. For

example, in one area, a community dentist described how a neighbouring NHS

organisation had won the tender to provide the CDS, effectively resulting in a

management takeover for existing CDS staff. This was considered to have

affected inter-professional working, as well as having restricted the availability

of care which community dentists could offer patients in subsequent years.

> '…if there was any multi-disciplinary care it was a lot easier, because we
> were all under the same trust… accessing information was easier…

sharing budget was much easier, because people weren't saying 'oh well, I'm sorry, you're not part of this anymore, we now have to start charging you rental'…' (CDS1)

Even in areas with apparently stable clinical leadership, senior community dentists were sensitive to the potential for future commissioning decisions to constrain CDSs which were still considered to have a safety-net function, providing dentistry for people who were at the borderline of eligibility, whose needs were not being met by GDPs. Models, such as the BDA case mix tool, which were intended to rate the complexity of patients, were occasionally perceived to have drawbacks.

> 'If we get to a stage where we are commissioned to… the BDA case mix tool, then… if we assess a patient and they are below our threshold, we will just return them to that dentist. I'm not sure it works particularly well for them… Is the referring dentist going to do the treatment? Well, I'm assuming not, because they've already decided that they can't, or won't.' (GDP9)

In spite of these concerns, senior community dentists explained that they were working with commissioners and neighbouring NHS organisations to create MCNs. Several community dentist participants (but no GDPs) mentioned this new policy, which they felt was intended to produce collaborative groups of dentists who could provide for patients of all complexities, predominantly within PDC. However, it was evident that engaging all the necessary dentists was proving very difficult.

> 'What we really need is the general dentists on board, to help with a care pathway that is smooth, effective for both sides and is also not just one-way… But their input is so important.' (CDS2)

5.3.5.5 Perceptions of the role of community dental services

The role of the CDS was usually described in terms of the services provided to patients, and the nature of the patients themselves.   CDSs were perceived, by

most participants, to offer additional time, emotional and behavioural support,

and anxiety management in the form of sedation and GA, where necessary, to

any patients who needed such support. All participants expected CDSs to

provide routine dentistry, but some GDPs also expected a range of specialist

services to be available, such as restorative specialties and oral surgery. Many

participants also felt that CDSs should provide domiciliary services, oral health

promotion services and, occasionally, urgent dental access services. However,

as it has been shown above, participants indicated that CDSs did not

consistently offer these facilities, and where they were available, patients'

eligibility was often strictly defined.

> '…you could look at, say, the GA assessments and say well obviously
> the function is to provide specialist advice and treatment planning for any
> child undergoing GA exodontia, but if you want to put this whole CDS
> into one phrase… it's groups, either excluded from high street practice,
> or groups of people that, with the best will in the world, cannot be treated
> in high street practice, the high street GDP would not necessarily have
> the skills to treat them.' (CDS12)

Participants consistently indicated that patients with complex medical conditions

and severe disabilities should be cared for in CDSs. However, there were

inconsistencies between participants' perceptions about other vulnerable

groups of patients, especially frail, older people, anxious adults, children or

socially-excluded adults with extensive dental caries, and people taking certain

medications. In general, GDPs suggested that most patients in these groups

were the responsibility of community dentists. In contrast, community dentists,

particularly specialists, usually felt that many patients from these groups could

receive at least some of their dental treatment from GDPs.

> 'I think anybody who can be managed with a bit of, you know, perhaps
> it's just a bit of TLC… it might just be that they need a little bit more
> explanation or… give them five more minutes to let them sort of catch

their breath and sit down, it's not rocket science really… I think that's within the remit of the General Dental Services.' (CDS1)

Most participants suggested that there was a continuum of complexity relating to patients' impairments, cooperation or medical conditions. However, it was very difficult to ascertain exactly where they felt the limits of their responsibilities were along this continuum. In addition, the extent to which these limits related to participants' willingness, financial circumstances or skills in clinical techniques or patient management, was unclear.

'…there are no concrete borders… you can make generalities and say in principle, this is the sort of thing, but it's very patient and personal dependent… So it's very difficult to say, and it is a continuum, it's not a staged thing really.' (CDS2)

In contrast, both trainee GDPs offered precise examples of the boundaries of their roles, at which they felt responsibility transferred to community dentists.

'I think it was a five year old patient who needed multiple fillings, so I did the check-up and everything… called her back twice to do the fillings, but every time she heard the drill, burst into tears and wouldn't let me do anything at all… weren't really progressing anywhere, so… that's when I did the referral.' (GDP10)

Similarly, some community dentists shared situations which they felt did not meet their responsibility.

'The inappropriate ones are the ones that say, 'this child is too frightened to receive care'… and then the child comes in and they're not too frightened to receive care at all… and I just think 'why's this dentist referred them to me? Is it because there's just too much caries to deal with? Or do they just not like treating children?' I don't know.' (CDS7)

However, most explanations, from GDPs and community dentists were vague, highlighting both the variation in dentists' perceptions of their own abilities, and the contested role of the CDS. Even the supposed position of the CDS within PDC was not shared by all participants.

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'I think that it would be better to, for the demanding patients to go to…
secondary care of some sort, whether it's a community dental service, or
a hospital, or a specialist clinic somewhere, you know, something that's
not part of the primary dental services…' (GDP5)

5.3.6 No Man's Land

A gap appears to exist between the types of patients for whom GDPs

considered themselves responsible, and those for whom the community

dentists expected to provide care. In this gap, participants positioned several

groups of potentially vulnerable people, who were described as needing more

time or more support to cope with routine dental procedures. These groups

appeared to include some young children, anxious and socially-marginalised

adults and frail, elderly people.

These people were described by GDPs and community dentists as having more

dental disease, or more chaotic and dependent lives, than other patients

attending general dental practices. However, some community dentists claimed

that a little more time and effort from GDPs could overcome the challenge of

providing for such patients in general dental practice. Consequently, they were

not perceived to be sufficiently deserving of access to CDSs.

Several participants gave examples of bending the rules, in general dental

practice or a CDS, to accommodate people whose eligibility was questionable,

whom they believed to be deserving of their help. Most participants

acknowledged that some features of the GDS contract made it difficult for GDPs

to spend time supporting vulnerable patients. However, opinion was divided as

to whether, in principle, responsibility for these groups should lie with

community dentists, as a continuing safety-net function, or with GDPs, subject

to improvements to the GDS contract.

5.3.6.1 Deserving and appreciative patients

Participants had differing views about the patients who were entitled to receive quality care, varying from patients who appeared to value their oral health and appreciate their dentist's contributions to its maintenance, to patients who were considered to be the most vulnerable people in society. Caring for extremely vulnerable people was a defining feature of the roles of specialist community dentists. This group of patients included people with multiple, complex medical conditions, physical and mental impairments. They were described by some dentists as being deserving patients.

> '…it's a specialist service, at the end of the day, community, it's not just mopping up… I think that's probably stopped, that there's a different emphasis… we'll treat more people and leave the deserving cases to community…'(GDP2)

GDPs indicated that they preferred to care for patients who value their oral health and showed respect and appreciation to the dentist for restoring and maintaining it.

> '…it's quite humbling, the people who stayed with us [after converting to private practice], some of them were the people that we didn't expect to stay because we didn't know if they would afford it but I think… people liked us and wanted to stay with us.' (GDP6)

5.3.6.2 Difficult or routine patients

Several participants were aware of patients whose characteristics seemed to place them outside both these groups of appreciative or exceptionally deserving patients. These patients were perceived by some GDPs to be challenging patients who were particularly difficult to treat for numerous reasons, including being unreliable in attending appointments, paying less attention to preventive advice, having very little money to spend on dental care, needing more dental treatment than other patients and needing more time and support to cope

during routine procedures. Such patients were perceived to be time-consuming

and therefore costly to treat in general dental practices. Some GDPs reported

that they occasionally treated some patients whom they perceived to present a

challenge, but they recognised that this had an impact upon the practice.

> '…it's down to money, unfortunately… if you're a practitioner that seems
> to want to encourage and accept this type of patient, they're actually
> often a more time-consuming patient, costs the practice more money
> because of the time spent per appointment and it's a shame that…
> you're not possibly remunerated to allow you to do that.' (GDP2)

It was recognised that GDPs could accommodate the needs of potentially

difficult patients and prevent challenging situations by spending more time and

effort helping those patients to cope during treatment. This was thought, by

some GDPs, to explain their limited need to refer to CDSs. However, this was

only considered to be an option for people who were paying for private dentistry.

> '…even with the very youngest patients I can always deliver treatment,
> so I wouldn't refer children to community because it's just experience,
> time and patience. Unless I missed something, totally, somewhere.'
> (GDP7)

Conversely, these participants also felt that it was not their responsibility to

undertake this difficult work in practice when those patients were unwilling or

unable to pay privately for this extra time and effort. Those patients, they felt,

should be the responsibility of community dentists.

> '…I felt like it was difficult, very often, to treat certain people and I always
> knew the kind of person, it was someone who had been to different NHS
> dentists and… they just dropped off or disappeared sometimes… there
> was a lot of people that we felt like we couldn't help, for various reasons,
> definitely.' (GDP5)

In addition, some GDPs felt that difficult patients required a special skill, one

which only community dentists possessed and that, therefore, CDSs were the

best place for difficult patients to be treated.

'…but he is amazing and, but I don't know anyone doing what he's doing at the level that he's doing at, do you know what I mean? But he treats patients that most people can't even treat… how to encourage patients, how to motivate them… it's those kinds of skills, but I think they can take sometimes a long time to learn.' (GDP4)

Many community dentists described meeting these patients when they were referred to CDSs. In contrast to GDPs, they felt that this group of patients were relatively routine patients who were straightforward to treat. Consequently, community dentists often described these routine patients when they were explaining the idea of inappropriate referrals.

'I think some didn't enjoy treating children, some didn't feel they were good at treating children and so just saw it as, in terms of business, it wasn't financially viable. So, I work in an area of significant caries… and I think some dentists would say, when faced with that, they wouldn't know where to start treating those children.' (CDS7)

5.3.6.3 People situated in No Man's Land

Several dentists recognised that PDC, in its present format, was not meeting the needs of patients who were, simultaneously, perceived to be both difficult and routine to treat. They felt this group of difficult/routine patients occupied a gap between general dental practices and CDSs, which they called No Man's Land.

'…although there were periods of their life when they were rehabilitating themselves, they probably would have fitted our criteria at some point or another in the past… they're sort of in this No Man's Land… it's a shame, you know, when they're really trying and somebody's, they're not being listened to properly…' (CDS1)

The vulnerable people who were most often described as displaying the characteristics of difficult/routine patients were:

- Children and adults with extensive dental decay and/or needing any help to cope with treatment or anxiety;

- People who struggled to cope with everyday life, reliably attend

  appointments, maintain their oral health or fund regular dental care;

- Older people who were becoming frail and needed to be treated at home.

5.4   Role perceptions

5.4.1   GDPs' perceptions of their own roles

GDPs perceived their roles to involve providing the majority of patients with the

majority of their dental care, including diagnosis, prevention and treatment, with

an emphasis upon providing treatment. They expected to do this in the context

of a long-term dentist-patient relationship, for patients who responded by taking

responsibility for their own oral health, under the GDP's guidance.

> 'My role, I think is, you know, to provide services to the local population,
> relating to their oral health. So, it would be anything that they would
> need to make their oral health fit for purpose… also as a general dental
> practitioner, I wouldn't be able to satisfy everything the patient needs…
> so I would sometimes need to refer them to my colleagues for second
> opinions or for further treatment…' (GDP3)

5.4.2   Community dentists' perceptions of GDPs' roles

Community dentists held similar expectations of GDPs, although some were

sceptical of GDPs' commitment to delivering preventive care. They

acknowledged that most GDPs delivered a high quality of care for their patients,

but felt that GDPs sometimes allowed financial consequences to influence their

decisions about patients' care.

> '…to provide prevention for the patients, to provide treatment for the
> patients, I think the contract… I feel a lot of the UDA system at the
> moment, it doesn't help a general practitioner to provide care for the
> slightly more challenging patient who could be treated in general practice,
> with a little bit more time.' (CDS5)

5.4.3 Community dentists' perceptions of their own roles

Specialist and general community dentists held similar perceptions of their roles,

which related to providing patients with individually-tailored care. However,

specialists focused on caring for the people in society with the most complex

additional needs, whereas general community dentists felt they had a

responsibility towards a broader range of patients who needed extra support.

> 'The children mainly are young children, nervous children who have a lot
> of treatment needs, and the adults are very different levels of learning
> difficulties or obviously any sort of disability that means that they can't
> access care anywhere else… if they have mobility issues or are within a
> care home setting or are bed-bound then I would go to their homes and
> provide domiciliary care as well.' (CDS3, generalist)

> '…I'd say 80 to 90 per cent of my work is Paediatric Dentistry, the rest
> would be Special Care Dentistry… I provide inhalation sedation,
> treatment of complex cases, trauma, a lot of work with anxious children,
> children with autism and other behavioural conditions, children with
> complex medical needs, children who need treatment under GA, children
> with complex social issues, looked after children…' (CDS7, specialist)

5.4.4 GDPs' perceptions of community dentists' roles

GDPs had diverse and extensive expectations of community dentists, ranging

from treating people with learning disabilities and medical problems, to

managing anxious patients and people who need urgent care. They described

community dentists as having special skills in supporting patients, although

some also perceived community dentists to be lazy and disengaged.

> 'The perception is it's poorly managed. And that people are lazy…
> they're always just taking extra time and then doing nothing and then
> patients don't turn up and they just go off for lunch, long lunches. It's just
> as if the dentists aren't really engaged with really wanting to do any work.'
> (GDP9)

> 'I mean the people who work within the community dental service… in
> my opinion, have a particular set of skills and they shouldn't be abused,
> these skills should be valued and they should be used for the people

they're meant to, so that's for children, children with special or additional needs, adults with special or additional needs, higher needs…' (GDP8)

5.5   Summary of findings

The findings of this interview study show that primary care dentists consider themselves to have professional responsibilities to provide high quality care. GDPs provide technical elements of dentistry within a business context, to the majority of patients, in which the GDS contract poses some challenges. These challenges are overcome by working privately, referring patients to the CDS and, occasionally, absorbing the cost of treating a few longstanding patients whose care has become uneconomic for the dental practice to provide. Community dentists work in services which are increasingly commissioned to provide specialist-led, holistic dental care for patients with significant impairments or complex medical problems. Some dentists perceive these services to be under-resourced to an extent which precludes effective patient care. GDPs and community dentists report a sense of disconnection and a general lack of communication between the two groups. Both groups criticise each other's attempts to interact and are frustrated by the poor quality of requests and the tardiness of responses. GDPs' expectations that community dentists should initiate engagement are not matched by some community dentists' perceptions.

There is ambiguity regarding the roles of community dentists and CDSs. There is significant variation in referral processes and eligibility criteria between CDSs, creating confusion and frustration for GDPs when they try to refer patients. GDPs are reluctant to treat patients whom they anticipate, or actually find, to be time-consuming and in need of a dentist's support to cope with routine dentistry, perceiving such patients to be difficult to manage. However, community dentists, whilst sympathetic towards these patients, perceive them to be

relatively straightforward to treat in general dental practice. These patients do not meet the increasingly stringent referral criteria for some CDSs, because they are not considered to be sufficiently deserving of additional support. Instead, these difficult/routine patients fall into a No Man's Land between the two PDC settings.

5.6 Summary of chapter

In this chapter, I have presented a thematic analysis of data collected from this interview study, illustrating how primary care dentists perceive their roles and how these perceptions relate to the referral of patients from GDPs to community dentists. This analysis indicates that GDPs and community dentists are reluctant to accept responsibility for particular groups of patients, even though they are aware that patients in these groups are potentially vulnerable and often have significant dental care needs.

In the following chapter, I will present typologies of primary care dentists and their patients, which can be interpreted from the findings. The PDC arena and its constituent social worlds will be described and illustrated in the form of situational maps. I will consider the concepts of structure and agency in relation to PDC. I will reflect upon the research process and consider the significance of dominant perceptions about the authenticity of dentists' work, for certain patients in PDC. This interpretation of the findings will be considered in relation to the wider literature in Chapter 7.

Chapter 6   Interpretation of Findings

6.1   Introduction

Chapter 5 provided a detailed account of the thematic analysis of data collected from interviews with 22 primary care dentists about their professional roles and referral processes. In this chapter, I will interpret from the findings of the interview study to produce typologies of primary care dentists in England, and their perceptions of their dental patients. Drawing upon Strauss's Social Worlds/Arenas Theory (SW/AT), I will map the social worlds of general dental practices and CDSs in England and consider the implications of the distance between of these two worlds. The roles of dentists and other social actors in maintaining or modifying the rules and resources of these social worlds will be developed, in relation to Giddens's Structuration Theory. I will examine the apparent disparity between the value of technical and caring skills within PDC, using a Feminist Sociology of Work. The wider significance of these interpretations for patient care and policy development will be considered in the context of previous research in Chapter 7.

6.2   Typologies for primary care dentists and their dental patients

As I coded data from each transcript and referred back to my memos, I identified commonalities, inconsistencies and sometimes absences in participants' accounts of their careers. There appeared to be similarities between some participants, despite differences of geography, gender, time since qualification and, in some cases, working in different PDC settings. Conversely, some participants with apparently similar roles appeared to hold markedly different views about their roles within PDC. These observations led

me to create three analyst-constructed typologies of primary care dentists,

based upon participants' descriptions of their perceived purpose and priorities

and presented in section 6.2.2, below. Furthermore, I noticed that participants

themselves described their perceptions of certain groups of patients, and these

indigenous (participant-constructed) typologies are summarised in section 6.2.3.

6.2.1 Discursive axes

I became aware that participants' explanations of their own role consistently

included three principal components, which I have described as motivation,

allegiance and perceptions of care. Each component appeared to operate as a

continuum, or discursive axis, and each account thus gave an indication of a

participant's values, intentions or expectations in relation to their role. It should

be noted that a participant's position on a given axis indicated the emphasis

which they appeared to place upon the concepts in that continuum, and did not

mean that the participant did not place any value upon the opposing concept.

Figure 6 illustrates the axes of motivation, allegiance and care. The contrasting

concepts which characterise the extremes of the axes are indicated by coloured

arrows.
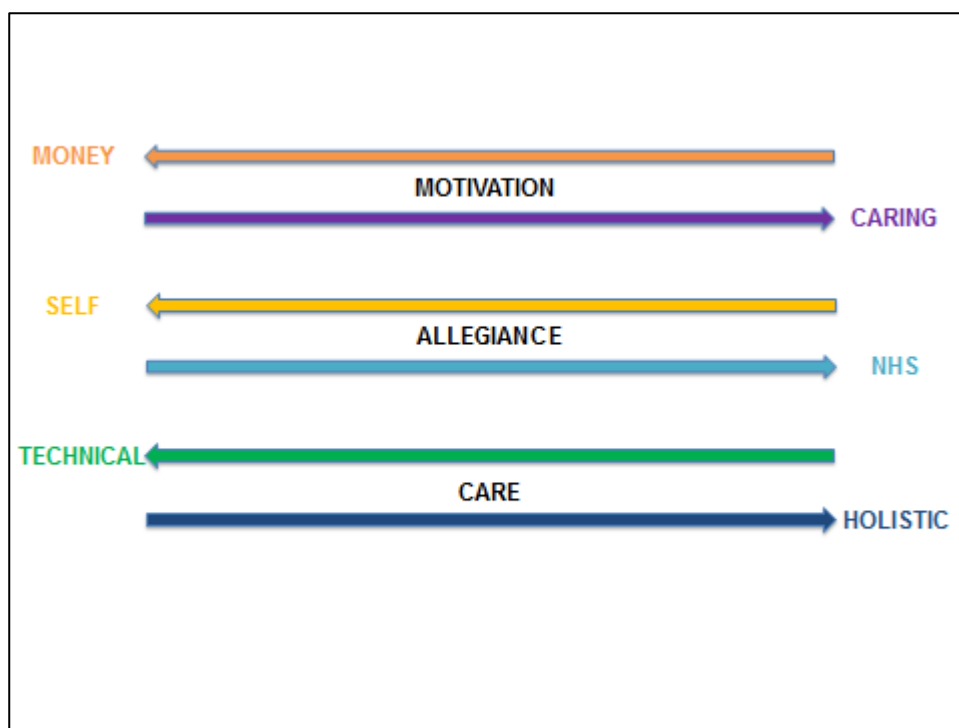
Figure 6: Discursive axes relating to primary care dentists' roles

6.2.1.1 Motivation

Participants' motives ranged from showing enterprise, by running a profitable

business, to caring for others, especially the people they perceived to require

the most help within society. Some participants, at the centre of this continuum,

were motivated to seek balance between generating a sufficient or reliable

income, and caring for patients. The existing literature focuses upon dental

students' motivations for a dental career in general, rather than the priorities of

qualified dentists. Research by Gallagher *et al.* (225) indicated that working

with people (particularly for female students), owning and running a business

(especially for male students) and having a professional and reliable job, were

key motivating factors for UK students' initial career decisions. Gallagher *et al.*

(226) later suggested that dental students' motivations were increasingly guided

by financial priorities as they progress through their training.

6.2.1.2 Allegiance

Participants' accounts usually indicated their allegiance, albeit indirectly. Many participants described their pursuit of independence from any collaborative work, sometimes to the point of actively and deliberately isolating themselves from colleagues, the profession and (as far as possible) the wider establishment. This appeared to parallel the broader professional detachment from the NHS as an institution, highlighted by Taylor-Gooby *et al.* (6) and discussed in section 7.3.3.2. In contrast, others spoke of serving, or engaging with, a local community, usually through the NHS. In many cases, this moral obligation was unspoken but implicit within a career-long NHS commitment to the CDS. However, for many participants, their commitment to the NHS was weaker than their commitment to providing high quality dentistry for patients, and did not guarantee their retention in the NHS system, which echoed similar findings within the allied health professions (227).

6.2.1.3 Care

Finally, perceptions of providing high quality dental care formed a spectrum ranging from a dentist's technical mastery of clinical skills, especially treatments, to a focus upon holistic, patient-centred care, tailored to the needs of the individual patient. Taylor-Gooby *et al.* (6) provide an extensive explanation for the dental profession's emphasis upon technical aspects of care, and this is elaborated in Chapter 7. At the midpoint of this axis are participants who sought to provide a wide range of treatments for people, whilst taking patients' personal preferences and limitations into account.

6.2.2 Typologies for primary care dentists

Individual participants' values appeared to be clustered at a similar point on each axis. The priorities of money as motivation, self-allegiance and a focus upon technical care tended to occur together, whilst priorities of caring, allegiance to the NHS and a holistic approach to care also clustered together in certain participants. By considering each participant's account, in relation to the three components, I developed three analyst-constructed typologies which describe some of the notable characteristics of the participants: Entrepreneurs, Pragmatic Carers and Altruistic Carers. Whilst there was variation between individual participants, these typologies could be applied to all the participants in the study. Figure 7 illustrates how the concepts from the discursive were clustered together within participants and how they mapped against the typologies of primary care dentists.
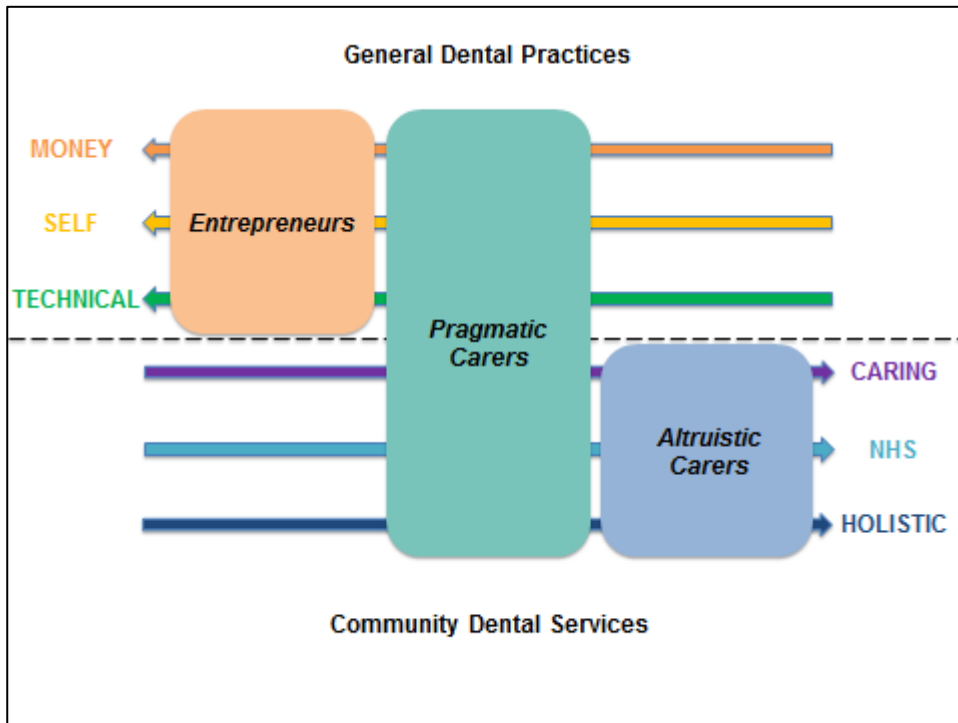
Figure 7: Typologies of primary care dentists in relation to discursive axes

6.2.2.1 Entrepreneurs

In this study, Entrepreneurs were highly motivated to own and run dental

practices as businesses, in which their technical dental skills were offered to

patients who valued such skills and were willing to pay for them privately.

Willcocks argued that an 'entrepreneurial approach' (228: p.213) has become

essential for GDPs, due to competition-based policy developments within the

NHS and consumerist market forces expanding the private sector. Taylor-

Gooby *et al.* (6) established that this approach is more common amongst GDPs

who work privately.

These GDPs valued their independence exceptionally highly and consequently

most Entrepreneurs owned small private practices, in which they were

sometimes the sole dentist, providing as wide a range of dental treatments as

they could as GDPs. When Entrepreneurs provided NHS dentistry, this was

done reluctantly, to avoid a substantial change to a business at the end of a

career, or on a small scale, to generate a reliable income stream, or historically,

when NHS fees were a lucrative aspect of a business, but not through

allegiance to NHS principles.

6.2.2.2 Pragmatic Carers

Pragmatic Carer participants aimed to balance providing dental care for all

types of people in the community, with earning a reasonable, reliable income. If

necessary, they were prepared to sacrifice a higher income to maintain quality

and clinical autonomy, but they did not require complete independence. I

elected to define these participants as 'pragmatic' because they appeared to be:

> 'Dealing with things sensibly and realistically in a way that is based on
> practical rather than theoretical considerations.' (229)

Many Pragmatic Carers, working as GDPs and generalist community dentists, engaged with communities through teaching roles, dental politics, or providing a safeguarding role for patients. Pragmatic carers described bending the rules to do their best for patients, providing domiciliary care or sedation for patients in need, and struggling with the decision to convert from NHS to private practice. They also expressed frustration and disillusionment with structural barriers preventing them from delivering high quality, timely and affordable care to a wide range of people. In particular, they referred to the GDS contract, continuous organisational change within the NHS and the chronic under-resourcing of community dental services, all of which they felt powerless to overcome.

6.2.2.3 Altruistic Carers

Altruistic Carers in this study were dedicated to helping the most deserving people in society and some described this as being their vocation. In a healthcare context, Le Grand described altruists as being 'public spirited' people (230: p.149). My use of the descriptor 'altruistic' is based upon this definition:

> 'Showing a disinterested and selfless concern for the well-being of others; unselfish.' (229)

Altruistic Carers were usually specialists in Paediatric or Special Care Dentistry and were committed to a career working entirely within CDSs, as employees providing NHS dental care, and showed no inclination to obtain greater financial rewards by working privately. They were devoted to the concept of holistic, patient-centred care and were not motivated by financial incentives, as illustrated by a participant:

> 'I suppose [my previous career] wasn't altruistic enough… for me, job satisfaction comes from trying to help people…' (CDS1)

Altruistic Carers gave examples of going to great lengths, often in collaboration with other healthcare professionals, to deliver individually-tailored treatment plans for patients with exceptionally complex medical conditions and impairments. They were very protective of their patients' needs and worked hard to preserve the resources and care pathways necessary to deliver high quality care. Many Altruistic Carers provided professional leadership and training within their own CDS and felt well-connected with other NHS organisations and commissioners. However, they expressed concern that some GDPs seemed reluctant to engage and collaborate with CDSs to improve referral pathways.

6.2.3   Primary care dentists' typologies of their dental patients

Collectively, participants' descriptions of the patients for whom they provided dental care, and for whom they did not, formed indigenous typologies of those patients. Specifically, participants mentioned Appreciative Patients, Deserving Patients and several groups of Vulnerable Patients who were classified by some dentists as Difficult Patients, whilst others perceived them to be Routine Patients. Participants' perceptions of these patient typologies are described in detail in sections 5.3.6.1 and 5.3.6.2 of the findings in Chapter 5. Their characteristics are briefly summarised here, and Figure 8 relates each typology of patients to the group of dentists who expect to provide their care.
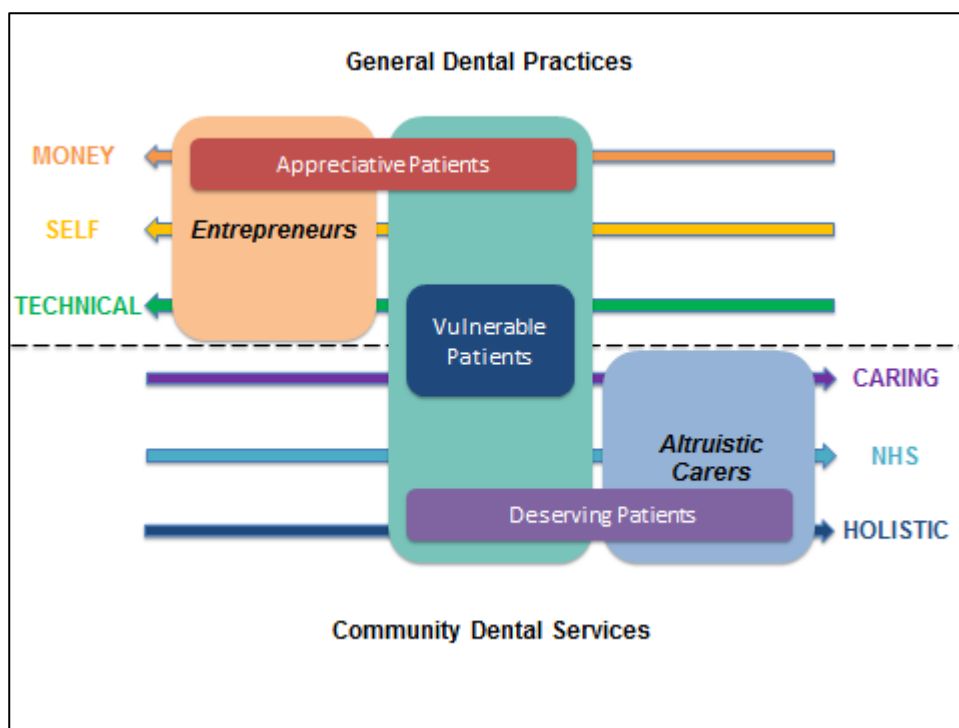
Figure 8: Typologies of dental patients in relation to typologies of primary care dentists

6.2.3.1 Appreciative Patients

Appreciative Patients were usually described by GDPs and represented the

majority of the patients they treated in general dental practice.

> '…that's quite a nice feeling… if people… are appreciative of what you're
> doing…' (GDP10)

Appreciation was perceived to be demonstrated in several ways. For many

participants providing private dentistry, a patient's willingness to pay for private

dentistry was interpreted as appreciation. Similarly, a patient's long-term

commitment to attending the same dental practice was also perceived to

indicate appreciation. Patients were also perceived to show their appreciation

verbally, through conversations which were considered to demonstrate a

patient's trust in the dentist, regarding dental or non-dental matters, as well as

by reporting back to the dentist about the success of previous treatments.

6.2.3.2 Difficult, Routine and Vulnerable Patients

Patients who were perceived to possess certain characteristics were often described by GDP participants as being Difficult Patients to treat. These characteristics usually related to a patient's need for more time or personal support to complete a course of NHS treatment, especially when combined with unreliable attendance for appointments. Some participants suggested that they could predict which patients would fall into this category, based on their own past experiences. Entrepreneurs, in particular, appeared to have little sympathy for Difficult Patients, whom they rarely met. Although some of these participants had adopted a business strategy of private dentistry which inevitably resulted in very few encounters with such patients, this outcome was described by those participants as being coincidental, rather than intentional. Pragmatic Carer GDPs made occasional efforts to accommodate Vulnerable Patients for ethical reasons, absorbing the financial costs to the practice.

Community dentist participants also described certain types of adults and children, with similar characteristics, whom they recognised might be described as being Difficult Patients by GDPs. However, they generally demonstrated some sympathy with the plight of these patients, acknowledging the social circumstances behind their apparently challenging behavioural responses. Consequently, whilst these participants also felt that such patients would benefit from receiving more time and support during dental procedures, they considered it to be quite normal and reasonable to provide this form of assistance, and so they considered these same patients to be Routine Patients. They were not perceived to be eligible for the specialist care provided by Altruistic Carers, however, in some CDSs, generalist community dentists were

permitted to provide their care, and in others, as Pragmatic Carers, generalists

would sometimes bend the rules to treat them.

The groups of patients who were most commonly described as Difficult or

Routine Patients were defined by participants in terms of social circumstances

or behavioural responses. They were considered to be different from Deserving

Patients as they were not perceived to suffer from complex impairments or

medical conditions. Difficult/Routine Patients were often perceived to include:

- Children and adults with extensive dental decay and/or needing any help

  to cope with treatment or anxiety;

- People who struggled to cope with everyday life, reliably attend

  appointments, maintain their oral health or fund regular dental care;

- Older people who were becoming frail and needed to be treated at home.

Taking these characteristics into account, some participants showed awareness

that, although these patients did not have complex conditions, they were still

relatively vulnerable in comparison to other members of society.

> '…vulnerable groups… we're quite close to a big Sally Army hostel, so
> we get quite a lot of people from there, [and] travellers' sites, that seem
> to find it hard to access high street practitioners…' (CDS12)

A current dental policy also uses the term 'vulnerable' to describe people in

similar situations:

> 'Vulnerable patients can be defined as anyone who needs extra support
> in finding a dentist, visiting a dentist, receiving dental care, or looking
> after their oral health. This does not include groups that cannot exercise
> choice and require care within Special Care Dentistry.' (8: p.38)

Significantly, in dental policy terms, vulnerability generally relates to groups of

people constrained by social barriers (8), and does not include individual

disabilities, which are more often defined as one of several 'additional needs' (231: p.14). Thus, Vulnerable Patients do not meet the 'additional needs' criteria for legitimate access to Special Care Dentistry, despite the potential for overlap mentioned in section 6.2.3.3, below. The use of the term 'vulnerable' in dental policy, as excluding disability, aligns closely to the similar, but inconsistent, perceptions described by participants about Difficult/Routine Patients and is therefore the definition upon which I have based my selection of Vulnerable Patients as a descriptor for this group.

6.2.3.3 Deserving Patients

Deserving Patients were characterised by participants as being children or adults who experienced exceptional misfortune in life, in terms of having extremely severe physical, mental or learning impairments, suffering from complex, life-limiting medical conditions or experiencing several such conditions.

> '…we'll treat more people and leave the deserving cases to community…' (GDP2)

The particular ways in which dental patients become worthy of such assistance, from a dental policy perspective, include 'physical, sensory, intellectual, mental, medical, emotional or social impairment or disability or, more often, a combination of these factors' (231: p.10). These specific impairments or disabilities are considered to merit access to Special Care Dentistry (231), although it is recognised that people with additional needs can also be vulnerable due to deprivation (8).

These patients were most often described by specialist community dentists, who took responsibility for their dental care. Numerous other participants also gave examples of patients whom they considered to be exceptionally deserving

of the time, attention and special skills of a specialist community dentist working

in a CDS.

6.3   *Social Worlds/Arenas Theory and primary dental care*

Having considered the characteristics of primary care dentists and patients as

individuals, Strauss's (147) SW/AT provides a theoretical basis on which to

consider their collective social actions within PDC. Using this theory, I have

mapped and described the connections between primary care dentists and

other social actors from formal organisations and informal groups which

contribute to the arena of PDC. It should be noted that I have based these

maps and descriptions on the data collected from participants in the interview

study and that other social worlds, which were not mentioned by participants,

may exist within the PDC arena, but are not represented in these maps and

descriptions because participants did not mention them.

By identifying and mapping connected social worlds, as presented by

participants, it can be seen that the social worlds of general dental practices

and CDSs operate as two distinct entities within this arena. This arena, its

social worlds, their sub-worlds and their connections are illustrated as

situational maps in the style suggested by Clarke (190) in Figures 9, 10 and 11

and described below. Figure 9 represents an overview, depicting the arena of

PDC, the social worlds of general dental practices and CDSs and the social

worlds and sub-worlds which directly relate to patients and referrals within PDC.

This shows how the sub-worlds of Appreciative, Deserving and Vulnerable

patients relate (or otherwise) to these social worlds. It also indicates how the

social worlds of general dental practices and CDSs are only linked indirectly, via

RMCs.
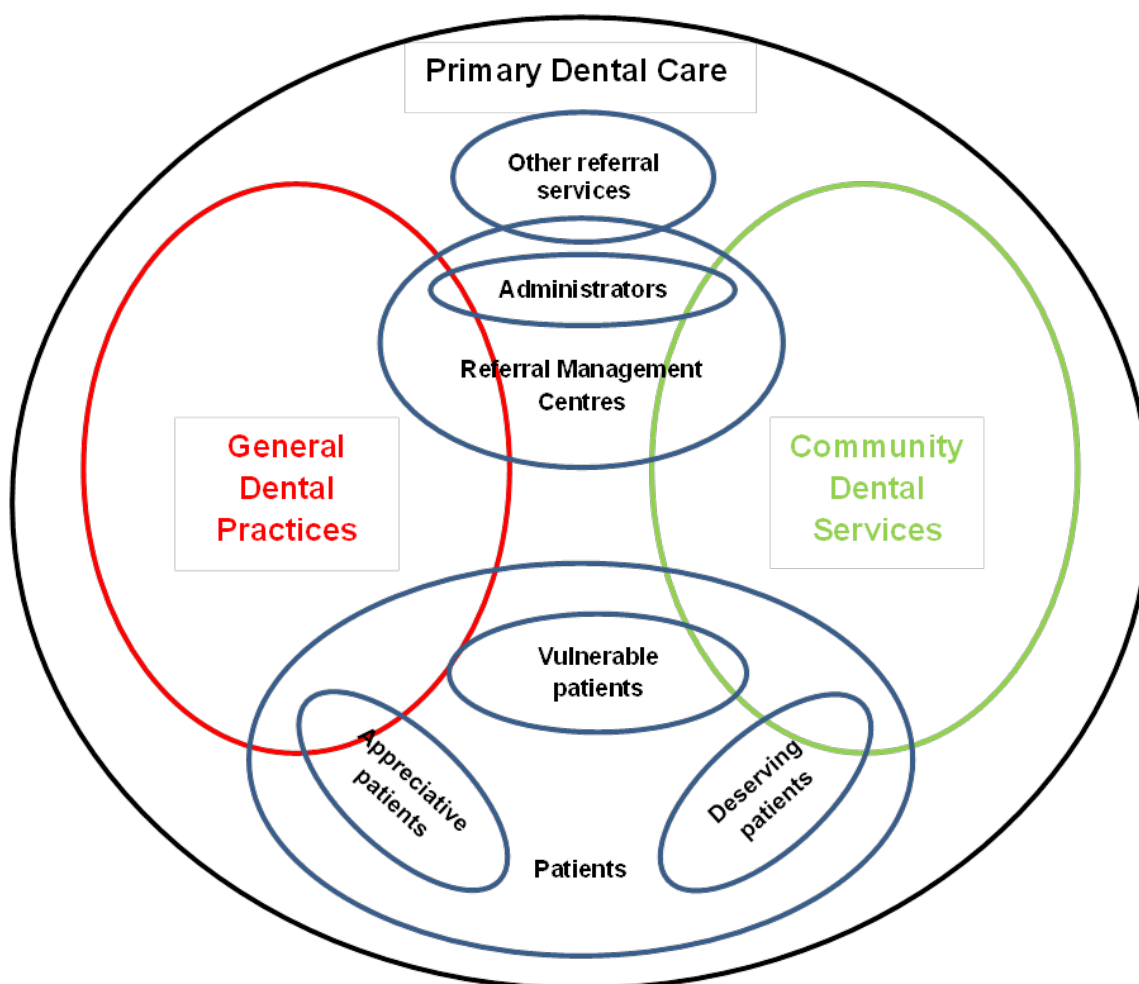
Figure 9: The arena of Primary Dental Care in England

6.3.1   The social world of general dental practices

General dental practices were described by participants as forming a diverse

social world in which GDPs, as social actors, may be located in independently-

or corporate-owned practices, and may provide private and NHS dentistry in

varying proportions. Within this social world, principal dentists in independently-

owned practices may negotiate with NHS commissioners to agree a contract to

provide NHS dentistry. Alternatively, they may choose to operate entirely as a private practice, with or without engaging with a dental insurance company to provide a payment scheme for their patients. In addition, principal dentists may elect to recruit a practice manager, associates and dental care professionals. Principal dentists or practice managers may be involved in complying with the requirements of authorities such as the CQC. For GDPs working as associates in corporate-owned practices, all such negotiations may be made by corporate management, thus reducing the administrative burden, but also the autonomy, of those GDPs.

GDPs may access CPD opportunities from various providers, including postgraduate dental deaneries, local professional networks and in-house training within dental corporate bodies. Similarly, they may become involved with teaching or research in dental schools, or with training for foundation dentists in the practice setting. GDPs may engage with formal professional networks, such as LDCs and national professional societies. Informal networks of GDPs working within one practice, or in similar practices nearby, may provide support or advice to each other. Some GDPs accept referrals from colleagues and GDPs in nearby practices, having acquired an informal referral network. Occasionally, GDPs may have tendered for a GDS contract to provide advanced NHS dental services within their area, as a formal referral service.

The informal social sub-world of Appreciative Patients is depicted, by participants, to connect with the social world of general dental practices. Participating GDPs indicated that they usually encountered Appreciative Patients in private dental practice. Appreciative Patients invest proactively in their oral health and are perceived to be willing to pay for any additional time or

effort this might require of themselves, or of their GDP. Consequently, many GDPs in private independent practices are unfamiliar with formal referral systems for accessing the CDS, through lack of use. However, when GDPs also provide NHS dentistry, they tend to meet some potentially Vulnerable Patients, who are perceived to be unwilling or unable to make such investments. GDPS who encounter Vulnerable Patients appear to be slightly more familiar with formal CDS referral systems, although they still experience difficulties with navigating those systems. These Vulnerable Patients are therefore depicted by GDP participants to inhabit a social world which lies at the boundary of the social world of general dental practices, without encroaching upon its margins to any great extent.

Figure 10 is a situational map which illustrates the social world of general dental practices and its constituent sub-worlds of social actors, such as principal and associate GDPs, which are outlined in red. It is based upon the accounts of participants and the thematic analysis of interview data. Other social worlds, which have connections with the social world of general dental practices, are outlined in blue. These social worlds, and some of their constituent sub-worlds, overlap the social world of general dental practices, to a greater or lesser extent. For example, Appreciative Patients have a closer association with the social world of general dental practices than do Vulnerable Patients, who are positioned very much on the periphery of this social world. In contrast, the social world of dental corporate bodies overlaps extensively with that of general dental practices and particularly associate GDPs. The social world of CDSs (shown in green) is not directly connected to the social world of general dental practices.
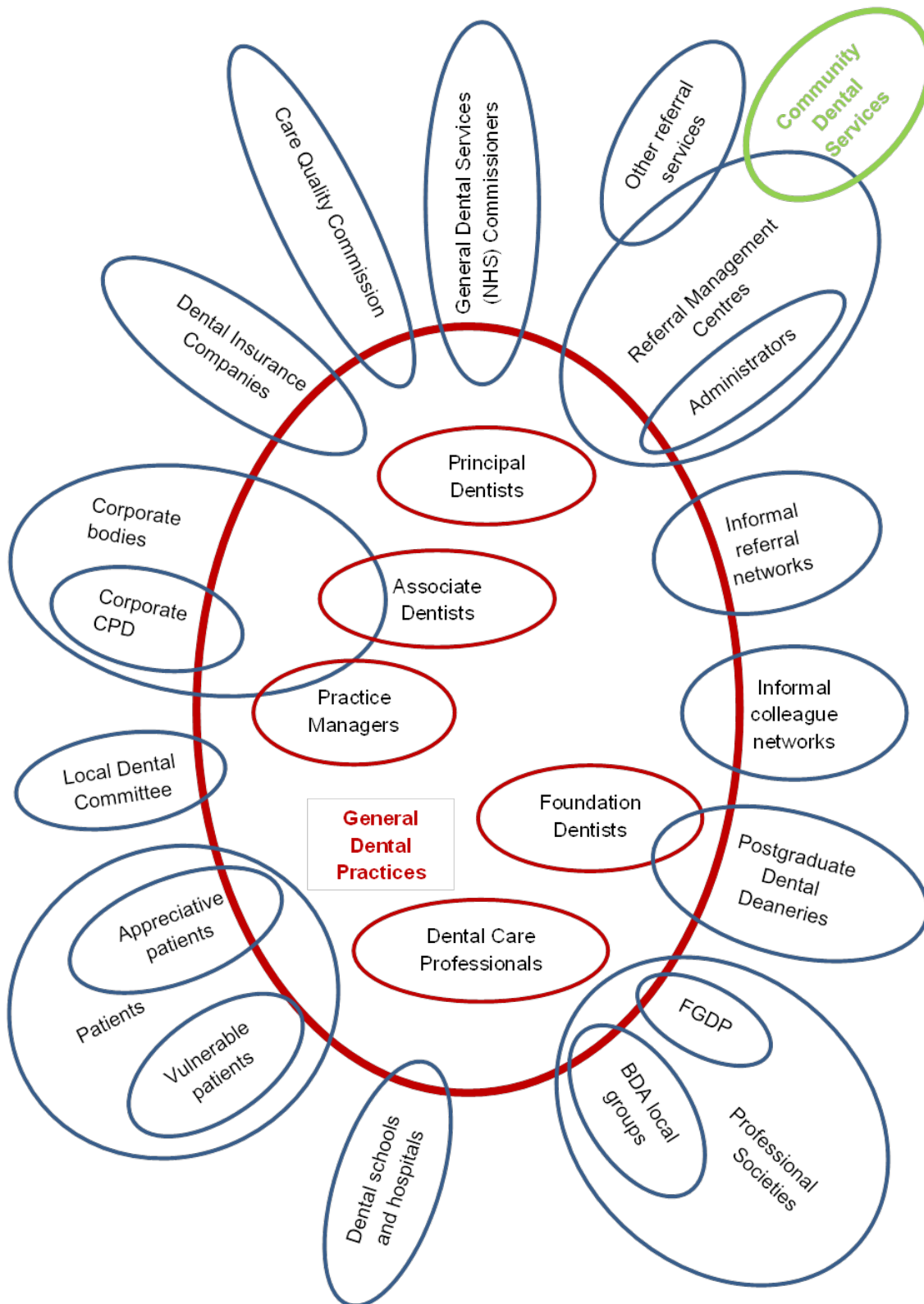
Figure 10: The social world of General Dental Practices and its adjoining social worlds

6.3.2 The social world of community dental services

This social world involves dentists who work in organisations which appear to emphasise one of two main purposes. CDSs which are predominantly led and delivered by specialists seem to attend to the needs of Deserving Patients with very specific and complex health conditions, whilst those which are primarily provided by generalists appear to focus upon providing a safety-net for patients whose needs are less complex, and may relate to their social circumstances. The characteristics of these patients are less clearly defined and may include some Deserving Patients and some Vulnerable Patients.

Senior community dentists, usually known as Clinical Directors, negotiate service specifications and eligibility criteria with their NHS commissioners, on behalf of the NHS Trusts and CICs for which they work. They forge links with other CDSs and with general dental practices, via informal telephone discussions, LDCs and other professional networks, such as MCNs. Specialist community dentists are often engaged in training others, at undergraduate, postgraduate or specialty training levels. Specialist and senior community dentists also engage with specialist societies and national professional networks which specifically relate to the CDS remit.

All community dentists who provide clinical dental care engage with dental patients, with specialist community dentists attending to the most Deserving Patients and generalists being more involved with less Deserving Patients or, in some services, Vulnerable Patients. As a result of the particular needs of their patients, community dentists also liaise with non-dental primary health and social care services, which support or refer patients to CDSs. Specialist community dentists often have links with healthcare professionals from NHS secondary healthcare organisations, which enable them to provide

multidisciplinary care for their patients. Generalist community dentists in some

services find themselves reluctantly referring patients to NHS secondary

healthcare services or dental schools and hospitals. They appear to lack some

of the external connections described by specialists. Somewhat reluctantly,

these generalists, and some specialists, tended to position the sub-world of

Vulnerable Patients close to the boundary of their own social world.

Figure 11 illustrates the social world of CDSs and its sub-worlds, outlined in

green, as a situational map. Connecting social worlds and sub-worlds are

indicated in blue. It can be seen that the sub-world of clinical directors has

some contact with the sub-worlds of commissioners and networks, whilst

several health and social care sub-worlds connect with the social world of CDSs

more generally. The sub-world of Deserving Patients is more closely

associated with the social world of CDSs, whereas the sub-world of Vulnerable

Patients is situated slightly more peripherally.
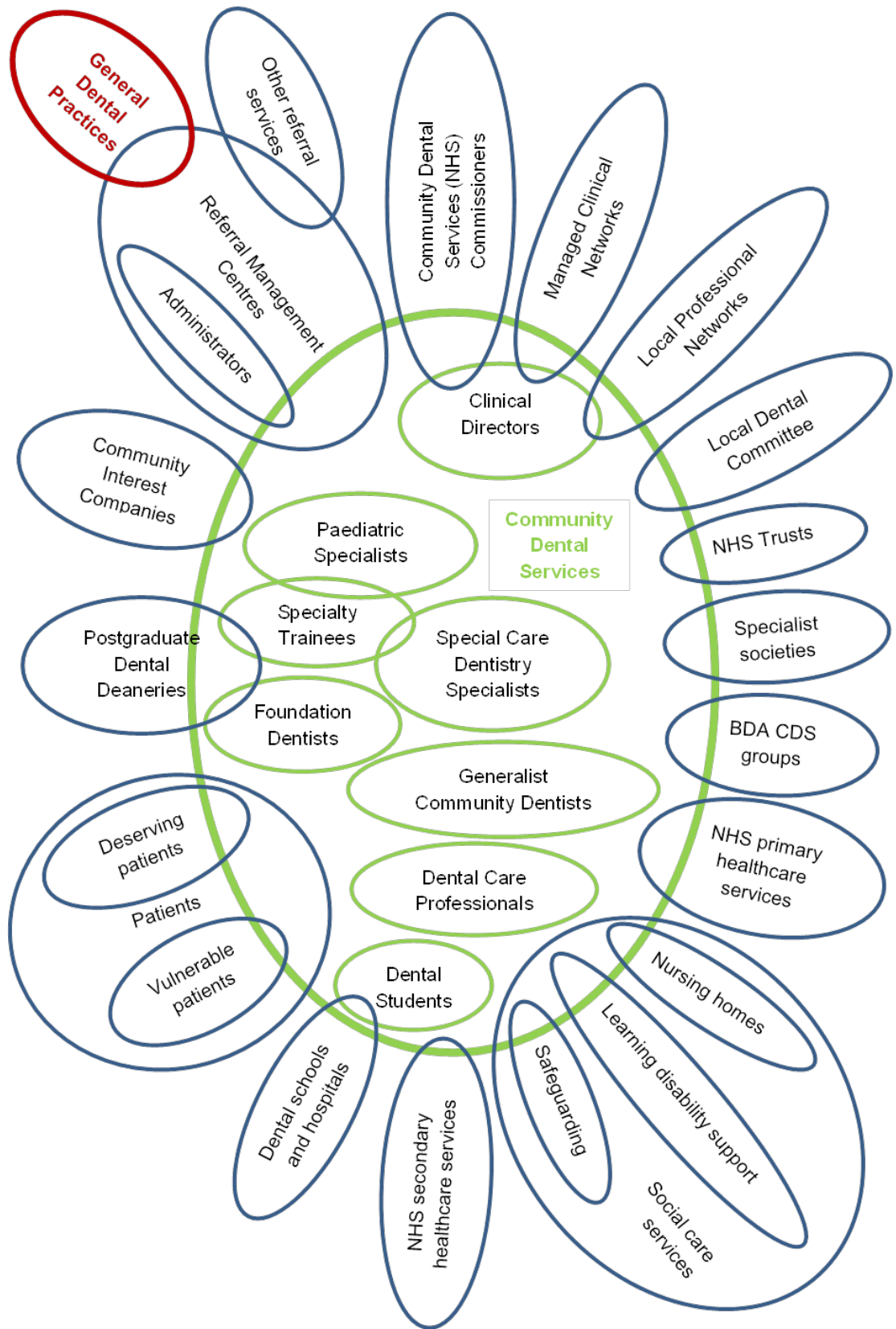
Figure 11: The social world of Community Dental Services and its adjoining social worlds

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6.3.3   Mapping the arena of primary dental care in England

Strauss describes how multiple social worlds and sub-worlds intersect, creating broader social entities called arenas (147). He emphasises that:

> 'These *arenas* involve political activity but not necessarily legislative bodies and courts of law.' (147: p.124, author's emphasis)

In this sense, PDC in England can be considered as an arena. It comprises the social worlds of general dental practices, CDSs and all of their adjoining social worlds, several of which are involved in dental politics and legislation.

6.3.3.1 Connections between adjoining social worlds

The process of mapping the arena of PDC in England shows that the social worlds of general dental practices and CDSs are populated by dentists who relate to different adjoining social worlds and aim to achieve distinctly different goals. Entrepreneurial GDPs embrace the independence of the business approach applied in general dental practices and focus their attention upon Appreciative Patients. These dentists tend to maintain their distance from connected social worlds and particularly resent their obligations to engage with bureaucratic social worlds.

Despite some sensitivity to its shortcomings, GDPs who are Pragmatic Carers also accept working within the business model, perhaps initially by default. They appear to gravitate towards the connected social worlds which involve supporting dental education and, occasionally, professional networking. In contrast, Pragmatic Carers working as community dentists tend not to look outside their own social world, except towards the non-dental worlds of health and social care, with which they share a responsibility for their patients. It would appear that both groups of Pragmatic Carers would direct more of their attention to the sub-world of Vulnerable Patients, if circumstances were more

favourable. Some of the possible reasons behind these unfavourable

circumstances are discussed in sections 6.4 and 6.5 of this chapter.

For community dentists who are Altruistic Carers, responding to the needs of

Deserving Patients with complex impairments is the dominant purpose of their

professional role. They achieve this through collaboration with other specialists

from the social world of secondary healthcare. This priority runs alongside a

commitment to social worlds involving dental education and training and, for

those dentists who also have a leadership role, a willingness to engage with

dental professional networks.

It is difficult to determine how dentists who work as full-time associates in dental

corporates may be engaging with adjoining social worlds, as the corporate

dentists who participated in this study were either in foundation training or only

working part-time in a corporate dental practice. All of these participating

dentists, therefore, had connections with other social worlds. However, this

cannot be assumed for full-time associates who, according to some participants,

may be obliged to source their CPD and clinical advice from within the

corporate body.

6.3.3.2 Connections between the social worlds of general dental practices and community dental services

This mapping process indicates that there are virtually no direct connections

between the social worlds of general dental practices and CDSs. Some GDPs

and community dentists who were Pragmatic Carers had experience of working

in both social worlds. However, it appears to be unusual to attempt to work in

both roles simultaneously; with the exception of one community dentist

participant, all of the Pragmatic Carers appeared to be committed to a professional life within one social world or the other.

The LDC, a social world involving a relatively formal professional network, appears to link only the most senior community dentists and independent practice principals. The recently-introduced policy of creating MCNs of dentists to manage patients who are in need of Special Care Dentistry was familiar to many senior and specialist community dentists, several of whom were actively engaged in trying to develop such networks in their region. In contrast, this policy development was not mentioned by any GDPs or generalist community dentists, despite the fact, emphasised by senior community dentists, that the policy was specifically intended to draw upon the skills of GDPs and generalist community dentists as well as specialists (8). Amongst the small number of participants who were actively engaged with the professional networks which adjoin both social worlds, some had past experience of working in the other social world, and one had a relative who did so, but no clear link could be identified between familiarity with, and professional engagement across, both social worlds.

Although members of both social worlds interact with patients, they do not appear to interact with the *same* patients. Instead, these patients are themselves from two distinct sub-worlds, Appreciative and Deserving Patients, with rarely any overlap. Indeed, some specialist community dentists cited health and social care professionals, rather than GDPs, as their main source of referrals for Deserving Patients, whilst, as noted previously, GDPs reported that Appreciative Patients rarely required referrals to the CDS. A third sub-world, that of Vulnerable Patients, is situated at the margin of the general dental

practices social world and on the periphery of the CDS social world, reflecting the suggestion from many participants that they have relatively little to do with this group of patients, other than in the context of making and receiving referrals for them. For some generalist community dentists, Vulnerable Patients were perceived to be almost equally legitimate users of CDSs, although they sometimes acknowledged organisational rules which claimed otherwise.

6.3.3.3 Referral processes as boundary objects

In her detailed description of SW/AT, Clarke mentions 'boundary objects … things that exist at the junctures where varied social worlds meet in an arena of mutual concern' (187: p.133). The referral process from general dental practices to CDSs links the two separate social worlds and therefore appears to operate as a boundary object. The referral process between the two social worlds is itself indirect, being mediated by administrators in the adjoining social world of RMCs.

Dentists from the general dental practices social world would appear to have no direct means of contact with their equivalents in the CDS social world. Many participants reported that they did not even know their names or working locations. Feedback for GDPs from community dentists appears to be communicated primarily by letter, with telephone conversations being reserved for exceptional situations which reach the attention of a senior community dentist. Changes to referral guidelines and criteria may be initiated by senior community dentists but seem to be cascaded by members of other social worlds, such as commissioners or RMCs.

6.3.4   Organisation of social worlds

Clarke elaborated on Strauss's theory by explaining that people define and give meaning to their own social worlds:

> 'Social worlds/arenas theory focuses on how people organize themselves, and addresses how they do this in the face of others trying to organize them and/or the broader structural situations in which they find themselves.' (187: p.135)

In the following sections, I have interpreted from participants' explanations of their feelings and actions relating to their social worlds, in order to convey dentists' efforts to organise and influence their professional lives.

6.3.4.1 Organising the social world of general dental practices

A striking feature of the social world of general dental practices was the resistance of many participating GDPs to the involvement of external people or organisations in the running of general dental practices. This included bureaucrats who were perceived to be demanding unnecessary quality assessments and commissioners who were felt to be dictating contract values. NHS and corporate contractual arrangements were thought to restrict participants' clinical autonomy. Participants were critical when their referrals were rejected or delayed by RMCs or community dentists, expressing a sense of frustration that their judgement was being questioned, and thus their autonomy undermined, by others who were unfamiliar with their patients.

Many participants acted to reduce the impact of such interferences in their social world by detachment. Some had found that they could avoid a considerable amount of bureaucracy by withdrawing completely from a GDS contract. Others only retained a GDS contract for providing NHS dentistry which they felt would enhance their business, such as the non-fee-paying adult

component of the pre-2006 itemised contract, or a post-2006 contract for a small number of children in an area where decay rates were low and few children needed treatment. Regarding dental corporates, participants reported avoiding corporate practices when seeking an associate position, or negotiating with the practice manager to reduce the official corporate treatment charges for a patient who could not afford the new private fees. It is not feasible, from this study, to indicate whether full-time associates in corporate practices resent or value the involvement of corporate management in their clinical practice. It is possible that such involvement is perceived differently by GDPs in this sub-world of general dental practice, or that they may be resigned to accept this situation through lack of alternatives.

Some GDPs were planning their early retirement, due to their frustration with the apparent increase in bureaucracy within general dental practices, and one was also actively discouraging a family member from becoming involved with NHS dentistry. Conversely, other participants indicated that they had been willing to work with the GDS contract, an inclination which was borne out of a commitment to the local community. This had led one GDP participant to take up a contract to provide additional dental services, and another to accept occasional financial losses in order to deal with dental problems for longstanding patients when they were in hospital. However, balancing this with an obligation to generate an income for the practice, or a personal income, was not easy and even these community-oriented Pragmatic Carers felt that this level of dedication could not be sustained much longer. A few participants had attempted to advocate for their profession by becoming involved with dental politics, though they were very much aware of the limited success of this approach. The apparent inertia of professional committees and the reluctance

of strategic organisations to implement change particularly irked these participants.

Overall, GDPs' attempts to maintain their autonomy and their income appear to have provided considerable 'in-world resistance' to change (188). Such resistance may have perpetuated the culture of independence, avoidance and suspicion of direct scrutiny which has dominated the social world of general dental practices in England since the inception of the NHS.

6.3.4.2 Organising the social world of community dental services

Advocacy, on behalf of their patients, appeared to be the primary concern of community dentists. In particular, this was indicated by attempts to maintain joined-up services in the face of commissioning pressures which tended to fragment services and cause delays and discontinuities in patients' care. For clinical directors, their advocacy role involved adopting a long-term strategy, predicting commissioners' future requirements and preparing patient-focused solutions in advance of commissioners' requests. Some senior dentists were actively collaborating with colleagues in neighbouring services to create networks or reclaim services which not only satisfied the demands of commissioners but also, and apparently more importantly to the participants, represented the best possible outcome for patients. Cross-subsidy of the CDS by other income streams was another approach intended to maintain services for Deserving Patients. The role of specialist community dentists in supporting trainees, and in the past, advocating for the formal recognition of Paediatric and Special Care Dentistry as dental specialties, could also be seen as an approach designed to focus attention and, thereby, resources, upon the care of specific groups of patients, in addition to achieving professional recognition.

In some services, it appeared that applying increasingly strict eligibility criteria was seen as the only way to protect Deserving Patients from the impact of reduced resources. This was associated with CDSs which were described as being specialist-led or specialty-focused. However, this approach was not universally employed. One senior dentist, running a service which was provided mainly by generalists, anticipated commissioners' forthcoming demands to restrict eligibility using a stringent numerical complexity scoring. In order to avoid Vulnerable Patients being rejected by the CDS after referral by GDPs, he was planning to evade such demands for as long as possible.

6.3.5 Authenticity and fluidity in the primary dental care arena

The presence of multiple sub-worlds within the social worlds of general dental practices and CDSs highlights the issue of members' legitimacy within a social world. Strauss states that:

> 'At first blush, anyone who is *in* a world (or subworld) is associated with its activities. But some are thought to be (or think of themselves as being) more authentically of that world, more representative of it…Some activities and products of activities can be discounted as nonauthentic. …Some people are defenders of a world's "shape"; others wish to change the shape.' (147: p.123-4)

It would appear that some participants viewed independent, predominantly private dental practice as the authentic version of general dental practice. Others expressed a preference that the restrictions of the GDS contract would be modified to enhance the feasibility of providing dentistry for a wider community, through the social world of general dental practices. In this sense, NHS dentistry is constructed as being representative of the social world of general dental practices by some of its members, whilst at the same time being cast aside as non-authentic by others.

Strauss highlights the fluidity of social worlds and sub-worlds over time, as perceptions of authenticity change, as summarised by Clarke:

> 'For while social worlds share commitments to collective action in a particular domain, they also characteristically contain conflict, contention, and dissatisfaction – often about what to do and how to do it. Social worlds, especially large ones, are thereby open to change through the activities of internal, external, and/or cross-cutting social movements.' (187: p.134)

An example of fluidity in the PDC arena is the emergence of the sub-world of corporate dentistry, which has enlarged in recent decades as a result of legislative development (232), entrepreneurship and investment (233). This may be changing the shape of the social world of general dental practices; however, it is difficult to assess, from this study, how this corporate sub-world is perceived by its members. In particular, it is unclear whether both corporate managers and associates share similar views about the nature of authenticity within general dental practices.

One consistent issue within this social world is the limited ability of dentists to change the nature of the institutional rules, such as the GDS contract, other than by opting out of the system. This appears to promote independent private practice as the dominant sub-world at present, for those dentists at liberty to opt out. However, the appearance of dental corporates as a large-scale employer has occurred at a time of increasing demands for accountability and a reducing sense of independence in more recent graduates, as presented by two participants in training posts. This would suggest that the social world of general dental practices is undergoing a major change in its shape, in which corporate dentistry may be emerging as an increasingly dominant social world.

A significant change may also be underway within the social world of CDSs.

Here, the authentic social world is depicted by generalist community dentists as

one which offers a safety-net function, supporting a broad community, including

Vulnerable Patients. In contrast, specialist community dentists perceive CDSs

to have a very specific purpose, caring for a more precisely defined group of

Deserving Patients. This latter interpretation of the purpose of CDSs appears to

be gaining authenticity over the safety-net concept, perhaps for two main

reasons.

The first reason involves the actions of members of the specialist sub-world to

legitimise their focus upon children and adults with complex care needs, by

obtaining formal recognition of the specialties of Special Care and Paediatric

Dentistry by the GDC within the last two decades (48, 49). Several participating

specialist community dentists reported having been actively involved at the

inception of the specialty of Special Care Dentistry and most senior and

specialist community dentists indicated that they were currently engaged in

specialist groups and specialty training within their discipline. In addition, most,

though not all, participating senior dentists were specialists, suggesting that

senior dentists with a significant leadership role and therefore greater influence,

are often likely to be proponents of a specialist-oriented CDS.

The second reason relates to broader legislative developments affecting the

NHS in England and described by senior community dentists, in which

commissioning and procurement of healthcare services, including CDSs, have

been separated from the provision of such services. According to participants,

this focus upon improved accountability appears to be leading to the

commissioning of specific services for specific patient groups in some areas,

whilst in others, it seems to have fragmented services in such a way as to deplete safety-net arrangements.

The acts of organising social worlds and claiming authenticity, described above, highlight the agency of dentists, and other social actors, to alter and perpetuate the social worlds of general dental practices and CDSs. However, dentists from different sub-worlds appear to hold varying degrees of influence over institutional rules and resources, such as the NHS, within the arena of PDC. This indicates that agency is unevenly distributed between dentists from different sub-worlds, who do not seem to act with a singular, collective purpose when they attempt to modify the structures and systems upon which PDC in England is based. I will expand upon this argument in more detail in the next section, by applying the key principles of Giddens's Structuration Theory to show how agency and structure are interconnected within PDC.

6.4 Primary dental care in the context of Structuration Theory

As outlined in Chapter 3, Giddens's Structuration Theory is based on the principle that people, as social actors, are capable of influencing the structure of their society, whilst at the same time being influenced by that structure, in a continual, iterative cycle (161), as depicted in Figure 2 in Chapter 3. For Giddens, societal structure refers to the rules and resources upon which a given society is based, the most persistent of which are defined as institutions. People's social actions may, intentionally or otherwise, maintain the existing structure or promote change within society. At the same time, Giddens recognises that those rules and resources can facilitate or restrict people's capacity to take action (161).

The findings of this interview study demonstrate the many and various ways in which dentists, as social actors, influence their own social worlds, and the wider arena of PDC, whilst also highlighting the limitations of their agency. In addition, the findings draw attention to the structural components of the PDC arena, including both longstanding institutions and more transient rules and resources. Many participants alluded, not only to the constants of their professional lives, but also to the significant changes which they felt had occurred, and continued to evolve, within the arena of PDC.

In the following section, I will consider how social actors and structures appear to be shaping PDC in England into its current form. I begin by focusing upon the agency of GDPs, as the most dominant group of social actors within the arena, before detailing other influences upon the social world of general dental practices. I then consider the social world of CDSs, including the agency of community dentists and other influential factors. I will conclude this analysis by paying particular attention to the consequences of structure and agency for referrals and, therefore, patients within PDC.

6.4.1   Structure and agency in general dental practices

6.4.1.1 *The agency of GDPs working in independent dental practices*

GDPs appear to have considerable autonomy, and therefore agency, within the social world of general dental practices. The concept of the independent dental practice was maintained at the inception of the NHS, as a result of the reluctance of GDPs to be controlled by a centralised system of management, and has persisted ever since (12). Giddens identified that some of the structures of society appear almost permanent, explaining that 'the *longue*

durée of institutions both pre-exists and outlasts the lives of individuals born into a particular society' (161: p.170, author's emphasis). Independent dental practice can, therefore, be considered as an institution within the English healthcare system, in its own right.

Throughout numerous changes to the GDS contract in England, GDPs have maintained their distance and used their influence to reject developments perceived to be unacceptable, by withdrawing completely from the structure of the NHS. Several participants provided examples of using their agency to disengage from the 2006 GDS contract. Eleven years later, the ongoing existence of that contract within the social world may give an indication of the limits of GDPs' agency, when faced with the agency of politicians and policymakers in the wider arena of PDC.

However, the continuation of the 2006 GDS contract may, equally, indicate that GDPs' actions, though deliberate and cumulative, are not necessarily coordinated. This may have resulted in ineffectual negotiations between individual dental practices and their NHS commissioners. Participants' explanations of their actions indicated that they made their decisions based upon their assessment of the impact upon themselves and their own business, and not on behalf of their profession as a whole. Whilst some claimed that their decisions were also made for the benefit of their patients, it was evident that such benefits were unevenly distributed amongst their patients, with many losing access to the general dental practice, whilst others gained more time and attention from their GDP, in exchange for paying private fees. This highlights the unequal distribution of power, and therefore capacity to act, between GDPs

and patients, as well as between patients themselves, in their adjoining social
world.

GDPs' rights and responsibilities to refer patients also appeared to confer upon
them some agency over patients and, to an extent, referral services such as
CDSs. GDPs' descriptions of their referral decisions indicated that such
decisions were made on behalf of patients, rather than in conjunction with
patients. In this sense, GDPs appeared to use their own personal criteria to
decide whether to offer or recommend referral and where to refer patients. That
is, whilst some GDPs gave examples of considering patients' needs and
preferences when determining the precise referral destination, the preceding
decision that the patient should be referred in the first place, generally appeared
to be made on the GDPs' terms alone. Thus the rules which create a legal
obligation for GDPs to refer patients whose care is, in their opinion, beyond their
capability, also permit GDPs the agency to determine, with legitimacy, whether
or not they personally provide a patient's dental care. This, in turn, offers GDPs
authority over RMC administrators and community dentists with regard to their
acceptance of such referrals, as the liability for assessment of personal
capability lies with the GDP, whilst their precise responsibilities to patients
remain ambiguous.

GDPs' personal independence appeared to take precedence over concerted
efforts to promote their agenda as a collective, even for Pragmatic Carers,
whose professional priorities were more patient-oriented than those of
Entrepreneurs. Few of the participants reported being engaged in dental
politics and those who did take part were cognisant of the limitations of

professional organisations in overturning institutional structures such as the 2006 GDS contract.

6.4.1.2 Structure and agency in dental corporate bodies

A significant change to the rules and resources of the social world of general dental practices occurred when legislation made it possible for general dental practices to be run by corporate bodies, rather than by individual dentists. This created a new group of social actors: the directors and managers of dental corporates. It also moved the balance of power away from GDPs, with regard to day-to-day running of general dental practices and purchasing of resources such as materials and equipment. Rather like generalist community dentists, GDPs working in dental corporates were relatively accepting of such restrictions in their practice, presenting themselves as being remote (both hierarchically and geographically) from decision-makers. Resentment of corporate control over GDPs' earnings, patients' fees and, thus, clinical decision-making, was only noticeable in one participating corporate GDP, who had decades of prior experience as an independent GDP.

Thus, it would appear that through the social action of external legislators and the subsequent social action of their own management teams, dental corporate bodies have effectively become a new and robust element of the structure of PDC. Dental corporate bodies have generated rules, applied collectively and with coordination, through which they control GDPs and, to an extent, NHS commissioners. By managing dental practices at scale, dental corporates may have developed far greater power to negotiate with NHS commissioners than independent GDPs could achieve, due to the volume of NHS dental care which they may be contracted to provide. At the same time, these organisations offer

resources, through which GDPs can gain employment and CPD (190), whilst

patients can obtain dental care.

6.4.1.3 Structure and agency in NHS contracting with general dental practices

The revision of contracting arrangements which took place alongside the roll-out

of the 2006 GDS contract was a structural change which transferred control of

contract values to NHS commissioners (12). Some GDP participants had

responded to these actions by opting out of the contract or reducing the size of

their GDS contract, a finding which was consistent with the Steele Review (12).

Regrets about withdrawing from a GDS contract, or being unable to obtain a

contract, were outweighed by the perceived benefits of independence, as

described previously in section 6.4.1.1.

6.4.2 Structure and agency in community dental services

6.4.2.1 The differing degree of agency of community dentists

Community dentists described themselves as working in large organisations

with an element of hierarchy, such that participants who were clinical directors,

as the most senior dentists, claimed to have a degree of power to influence

healthcare providers from other social worlds and, to an extent, commissioners.

Participants cited examples of their agency, including gaining and maintaining

collaborative links with hospital teams, establishing networks with other CDSs,

revising eligibility criteria and encouraging GDPs to tackle challenging dental

work which had been referred to the CDS. Some of this agency was achieved

through engaging with professional networks, but personal efforts to effect

changes were also described. Clinical directors also emphasised their sense of

agency within their own organisations, evidencing this through examples of

expanding the range of services offered and facilitating their staff to work to their strengths. To a lesser extent, specialist community dentists who were not clinical directors also conveyed a sense of influence, in terms of their ability to collaborate with specialists from other disciplines, for the benefit of their patients. The agency which they described often related to their perceived advocacy role, which, in turn, appeared to be derived from the formal recognition of their specialist status.

Conversely, generalist community dentists described themselves as having very little control or influence. For these dentists, this meant they did not feel they had any agency over where and with whom they worked within the service, the range of care they could provide, nor the patients for whom they could provide it. Similarly, they felt they had little or no authority to contact GDPs directly, nor to query their referral decisions. They described feeling powerless to control their patients' care pathways, particularly when they were required to refer patients on to other service providers. Similarly, their lack of agency to influence the capacity and range of service provision available within their CDS sometimes obliged them to try to continue providing patient care in the same manner, despite their awareness that reduced capacity, increasing demands and onward referrals were having a negative impact upon their patients' care experiences.

In fact, community dentists of all grades demonstrated some agency, both within and beyond their CDS, in that they made decisions about whether to accept or decline certain referrals. This could occur before, or after, they met referred patients. Regardless of whether or not they pursued this with the referring GDP in person, community dentists reported rejecting written referrals and discharging assessed patients back to GDPs for treatment. In addition,

community dentists also gave examples of accepting referrals or offering care to patients who, they felt, may not meet official eligibility criteria for the service but for whom they considered it unethical to decline to provide care. This tended to occur when generalist community dentists were concerned that patients would not be able to access care from someone else, or when they felt that a patient's referral might be deemed to be on the borderline of eligibility for more than one referral service, and it was anticipated that administrative debates over the legitimacy of the referral might lead to a delay in delivering care to the patient.

In this way, community dentists were also exercising agency over patients and RMCs by acting as secondary gatekeepers to the CDS. In some cases, the best interests of the patient were cited as the reason for such decisions, even when the decision was made to decline a referral. Alternatively, for specialist community dentists, the potential impact upon limited resources (and, consequently, increasing waiting lists) upon the best interests of other, more deserving, patients appeared to take precedence. Finally, community dentists emphasised their authority to override a GDP's treatment plan and to offer patients alternative means of pain control and a more comprehensive treatment plan. However, in describing these offers to patients and parents, community dentists suggested that, rather than imposing plans upon patients, such changes were discussed in a way which also enabled patients and parents to exercise some agency over the decision.

6.4.2.2 *Structure and agency in commissioning community dental services*

Senior community dentists described how an additional layer of bureaucratic agency over CDSs had developed as a result of formalised tendering processes. This change in the rules which governed the way dental care was delivered by

CDSs and redefined their target communities, appeared to be encouraging some CDSs to focus upon specialist dental care provision, whilst simultaneously changing other CDSs into very basic safety-net services. Several participants described how CDSs were required to tender for permission to deliver certain services, which had previously been considered a normal part of the CDS purpose. In some cases, where the CDS had not been successful, this had impacted negatively upon community dentists and patients by restricting the range of dental care which remained within the remit of the CDS. In one area, an entire CDS contract had been awarded to another CDS provider, resulting in an unwelcome management takeover and a more insidious restructuring of existing services, to the resentment of the incumbent community dentists. Through their ability to control the timing and sequence in which different types of service were put out to tender, and to decide which bids would be successful, NHS commissioners' actions could fragment the provision of specific elements of dental care, such as GA or sedation, across several different organisations. This appeared to disrupt relatively seamless, well-established patient care pathways, as well as stalling progress towards reconstructing coordinated systems after disruption.

6.4.3 Structure and agency across the primary dental care arena

In the preceding sections, I have considered the structures and social actors which specifically and separately influence the social worlds of general dental practices and CDSs. In addition, several organisations and informal groups of people form social worlds which adjoin and influence both general dental practices and CDSs. In the following section, I will consider these social worlds, and their influence within the PDC arena in England.

6.4.3.1 The NHS as an institutional structure

The NHS as an organisation, as well as the GDS contract as a concept, has outlived the professional lifespan of the current dental workforce. It can be argued, therefore, that the NHS has become an institution within the arena of PDC in England, as it has across all aspects of healthcare within the UK. The NHS has a role in contracting with GDPs, as individuals, and CDSs, as subsidiary NHS organisations or, more recently, as CICs. Therefore, it also has a role as the employing institution for most community dentists.

Despite strategic efforts to remodel the GDS contract to reflect pronounced changes in oral health and disease patterns in the community since the inception of the NHS (12), the existing GDS contract in England continues to attempt to quantify the tangible and predominantly treatment-related services provided by GDPs. Over the long-term, one of the consequences of this contractual arrangement may have been to perpetuate and endorse GDPs' tendency to remain task-oriented and to focus upon technical work, despite the overall reduction in disease levels in dental patients. By failing to value time and caring skills, it may also have suppressed the inclination of some GDPs, including Pragmatic Carers, to as much attention to the caring aspects of dental care provision as they might have done in different circumstances.

6.4.3.2 Organisations which exert authority over primary dental care

A number of authorities were perceived by some participants to exert power over dentists within PDC. Despite their authority to withdraw individual dentists', or entire dental practices', permission to lawfully provide dentistry, these organisations were only mentioned by a small number of participants, who mainly referred to the CQC, rather than others such as the GDC or the DoH.

Whilst Entrepreneurs tended to criticise their interference, one Pragmatic Carer reflected upon the need for such organisations to hold some dentists to account, on occasion.

6.4.3.3 *RMCs and the agency of their administrators*

The referral process, as described by participants, appeared to be evolving through a perpetually developing set of rules, specifically referral guidelines and eligibility criteria. These rules, in turn, seemed to be devised to ensure that CDSs and general dental practices provided the NHS dental care which had been commissioned. RMC administrators appeared to be covert social actors, indirectly influencing both social worlds by cross-referencing incoming referrals against referral guidelines and eligibility criteria and deciding whether or not to forward those referral documents to the intended recipients. Although senior community dentists reported being involved with developing and updating referral guidelines and eligibility criteria, this middle stage in the referral process appears to be entirely under the control of administrators. Some participants suggested that administrators may also allocate referrals to specific CDS sites or clinicians, although in other locations, participants indicated that such decisions were made by clinicians. Through their ability to control the flow of referrals, RMC administrators appeared to be able to influence outcomes for patients, as well as GDPs and community dentists. This appears to counter GDPs' ability to refer patients who do not meet eligibility criteria, and to reduce the potential for community dentists to accept such referrals.

6.4.3.4 *The agency of patients*

Appreciative Patients appeared to have influence in their role as consumers of dental services, especially private dental services. Several participants

indicated that patients who could pay for their dental procedures were usually able to decide where, when and how they received that care. Community dentists highlighted that, in addition to advocating for themselves, many Deserving Patients had other dedicated advocates who could demand their access to suitably tailored care, such as family members, support workers, and dentists themselves.

However, the Vulnerable Patients in No Man's Land appeared to lack agency within the arena of PDC. They were acknowledged by GDPs to be struggling to access general dental practices, being associated with erratic attendance and constrained finances. Unable to make significant financial investments in their dental care, Vulnerable Patients did not hold the same financial leverage as Appreciative Patients, and were not a commercially viable prospect for GDPs. Unlike Deserving Patients, they tended not to have strong advocates who could act on their behalf. In addition, they represented social groups which were perceived to have difficulty advocating for themselves. Consequently, Vulnerable Patients were depicted by participants as being unable to demand improvements or influence resource allocation within PDC and were beholden to others, such as Pragmatic Carers, to provide for them, despite the discouraging structural pressures in place. Vulnerable Patients were recognised by community dentists to be more severely affected than Deserving Patients by the selective withdrawal of services which had been deemed non-essential, such as mobile dental clinics for homeless people and domiciliary care for frail, older people. In summary, potentially Vulnerable Patients were portrayed as having little or no consumer power or advocacy at their disposal.

6.4.4 Dentists' conscious actions and their unintended consequences for referred patients

Giddens's (161) Structuration Theory suggests that because making and receiving referrals is every-day, routine work for GDPs and community dentists, they may be conscious of their intention to make or accept a referral (or not do so) without being aware of the underlying motivation behind this intention. In addition, they may or may not be aware of the less immediate consequences of their actions relating to referrals.

GDPs exercise control over patients, not only by deciding how many patients they are willing to accept into their dental practice, but potentially also by defining which patients will be accepted, based upon characteristics such as their ability to pay privately for dentistry. Several GDP participants referred to a lack of capacity (temporarily or permanently) to provide NHS dentistry within their dental practice. For patients who are accepted within general dental practices, GDPs then determine the dental services which are offered to individual patients and the terms upon which those services are offered, such as private fee schedules, dental insurance schemes or NHS dental fees. GDPs may subsequently decide whether to suggest referring a patient to the CDS or another referral service and if so, to which service the patient will be referred and the reason which will be given, both to the patient and to the referral service, to justify making the referral. It is unclear, from this study, whether GDPs' agency, in relation to making referrals, differs between independent and corporate dental practice.

Community dentists are also able to influence patients, by making decisions about whether each referred patient's characteristics and dental needs meet their organisation's eligibility criteria and referral guidelines. If referred patients

are accepted, community dentists decide how to discuss care options with patients and whether to concur with, or alter, the GDP's proposed treatment plan. They also decide which methods of pain and anxiety control to offer patients and, in some cases, how to prioritise patients' care, relative to that of other patients. In addition, community dentists may be able to decide where patients received dental care in the future, by choosing whether to discharge patients, or to permit them to receive ongoing care in the CDS.

Thus, GDPs' decisions to refer Vulnerable Patients may simply result from an intention to avoid the financial and emotional cost of providing their dental procedures. Similarly, community dentists' decisions to reject Vulnerable Patients may be the consequence of an intention to preserve limited resources for Deserving Patients. For GDPs and community dentists, such intended actions have become 'routinized' (161: p.xxiii) by the progressive developments in the rules and resources of their social worlds, as outlined in the following section. Structuration Theory suggests that whilst these are intentional actions, the routine nature of such everyday actions within the PDC arena means that it is unlikely that they stem from an underlying motivation to prevent, or delay, those patients receiving any dental procedures, even though this appears to be the eventual consequence for some Vulnerable Patients who are referred within PDC.

6.4.5   Structuration Theory and the creation of No Man's Land

Taking into account the characteristics of Vulnerable Patients, it can be seen that it is often these people who are referred by GDPs, and rejected by community dentists, leaving them trapped in No Man's Land, on the margins of both social worlds. Decisions to make or reject patient referrals are social

actions, and possible intentions behind such actions have been stated in

section 6.4.4, above. The variation in dentists' willingness or reluctance to take

such actions may relate to dentists' values and priorities, summarised in the

typologies presented earlier, in section 6.2.2. However, through Structuration

Theory, it is also possible to propose structural factors which may have been

instrumental in prompting these value-based responses. Two structural

pressures appear to contribute to the presence of this disputed zone between

general dental practice and CDSs, within which GDPs and community dentists

feel unable to work. One structural issue involves the rules which govern NHS

dental care in the social world of general dental practices; the other relates to

the rules which govern the allocation of resources to CDSs.

The current GDS contract does not capture, nor place any value upon, the time

and effort which GDPs may need to provide in order to support a patient to cope

with routine dental care. In addition, it does not distinguish between patients

who need minimal or substantial quantities of routine treatment, when

remunerating GDPs. Consequently, in its current form, the GDS contract

creates disincentives for treating patients who have widespread dental disease

and who, therefore, need a considerable amount of treatment. The failure of the

GDS contract to sufficiently accommodate for the increased demands placed

upon GDPs by patients who need support or extensive dental treatment, both

promotes and justifies the referral of Vulnerable Patients who are in need of

dental treatment, from general dental practices to CDSs.

The second structural pressure acts as a barrier to the acceptance of

Vulnerable Patients by community dentists within CDSs. This pressure is

generated by changes in the commissioning of CDSs, in a context of chronically

restricted resources. In particular, the focus upon commissioning specialist-led services for people with very complex conditions within a system which also has a safety-net function, focuses attention upon clarifying eligibility criteria. One participant reported that in some services, these criteria have been tightened up through the use of tools, such as the BDA Case Mix tool, which are intended to quantify the complexities of patients who need Special Care Dentistry (34). Other participants described how referral guideline documents have been revised and re-issued, in multiple media, to convey to GDPs the restricted role of CDSs, to deter GDPs from sending patients whose needs were insufficiently complex to merit entry to the CDS under its new definition. Many participants recognised that patients' needs for extra time and support formed a continuum across the wider community, which may include Deserving and Vulnerable Patients and does not have a discrete endpoint, unlike these eligibility criteria.

Figure 12 indicates how No Man's Land relates to the typologies of primary care dentists and the structural pressures of the GDS contract and commissioning objectives. This shows how the combined impact of both structural pressures promotes the development of a gap between the perceived roles of Pragmatic Carers in general dental practices and in CDSs, which predominantly impacts upon their willingness and ability to care for Vulnerable Patients.
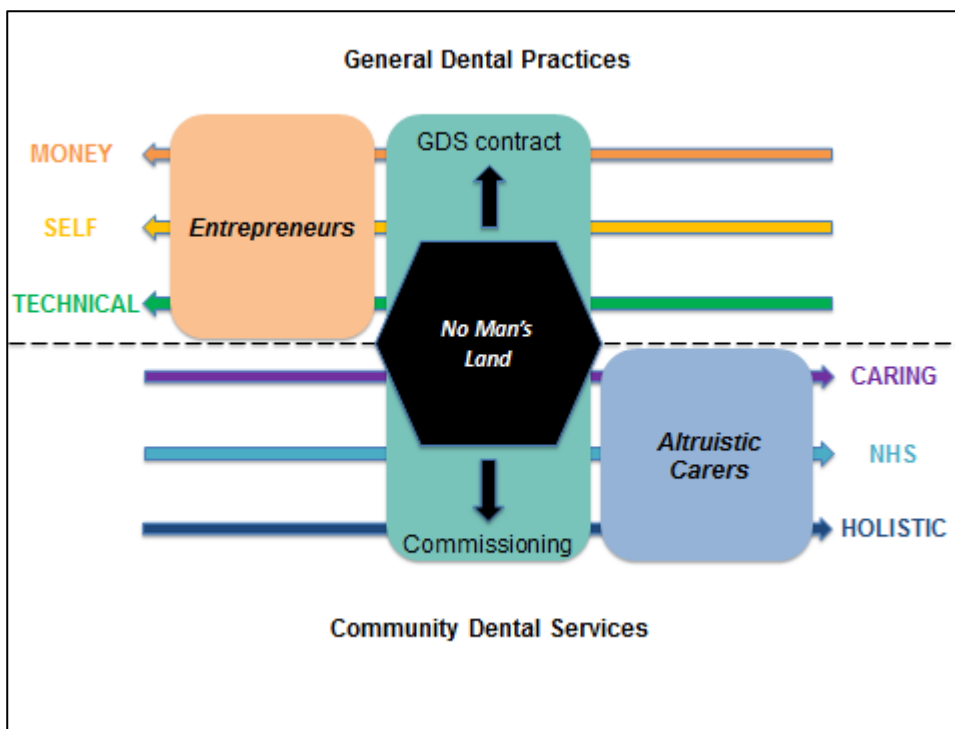
Figure 12: Locating No Man's Land in relation to typologies and structural pressures

6.4.6   Structuration Theory and the purpose of primary dental care

This interpretation of PDC presents an arena in which dentists with diverging role perceptions work within different social worlds, which are underpinned by contrasting objectives at a collective level. For Vulnerable Patients, these objectives represent the '[p]erverse effects' (161: p.13) of individual dentists' influence, intentional or otherwise, upon the rules and resources of their social worlds, in combination with the agency of other social actors from outside the dental profession.

Thus, through an iterative cycle of structure and agency in the PDC arena, the objective of the social world of general dental practices has become the running of viable independent or corporate businesses, which generate an income by providing dental procedures for Appreciative Patients, who act as consumers.

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Conversely, the objective of the social world of CDSs has predominantly become the provision of holistic dental care for Deserving Patients with especially complex conditions, tailored to their particular needs.

In addition, an historic purpose of the PDC arena, to which some participants alluded, appears to have been the provision of more time-consuming NHS dental procedures to Vulnerable Patients with extensive dental disease, restricted financial means and limited coping skills. Participants were divided as to whether this purpose was, historically, aligned with the social world of general dental practices, or CDSs, or with both social worlds. Although this type of work still seems to take place in some CDSs, the findings of this study suggest that it rarely occurs in general dental practices and that it is currently losing its legitimacy as authentic work within some CDSs. The demise of this type of work appears to be associated with structural features of these social worlds, notably, rules about financial recompense for work done in general dental practices and decisions about commissioning limited resources towards patients eligible for specialist dental care in CDSs.

6.4.6.1 *Conflicting perceptions of the purpose of primary dental care*

In summary, conventional professional perspectives of dentists' roles within PDC associate technical skills with autonomy, independence and monetary reward, whereas relational skills appear to be associated with care, collaboration and compromise. However, Structuration Theory proposes that the rules and resources which comprise the structural features of society are both maintained and modified by people' actions. This leads to the question of why such decisions about rules and resources developed within the PDC arena, given that their consequences appear to be in conflict with participants' reported

perceptions of their roles as professionals who provide high quality dental care for patients.

Although the literature in my systematic review alluded to the conflict generated by these contrasting priorities and values, it did not offer a theory as to why this diversity had developed within PDC. Whilst Nettleton (144) provided a comprehensive critique of dentists' power over their patients, through their control of knowledge relating to dentistry and oral health, her study was specifically situated in the social world of general dental practices and did not compare this with the social world of CDSs. Similarly, Taylor-Gooby *et al.* (6) offered a theoretical approach to understanding GDPs' remuneration preferences in relation to their role identities but inevitably this research topic did not provide an insight into the community dentists' perspective on values and motivation. Thus, the discipline of dentistry still lacked a critical sociological commentary upon authentic professional roles throughout PDC in England.

I approached this by considering, firstly, the concept of authenticity for dentists working in PDC, which is presented in the following section. After further reflection upon my experience of conducting this research project, detailed in Appendices 37 to 40, I progressed my interpretation to consider how work becomes defined as authentic or non-authentic, offering a critique of the values underpinning PDC in England. This is detailed in section 6.5 and discussed in a wider context in Chapter 7.

6.4.7   The authenticity of dental care

6.4.7.1 *The authenticity of technical dental work*
The dominance of GDPs and the social world of general dental practices over community dentists and the social world of CDSs can be explained in part by

the stark difference in the size of their workforces. However, several other

contributory features of these two social worlds can be identified by analysing

the PDC arena through the lens of Structuration Theory.

The social world of general dental practices is described by participants as

operating within a business model which, by definition, assumes the provision of

goods or services in exchange for money. More specifically, this business

arrangement was, and remains, broadly based on remuneration for providing

individual patients with quantifiable, tangible dental procedures (rather than

intangible elements of personal support or preventive advice), whether funded

by the NHS or private arrangements (6). In a social world which revolves

around business, attaching defined financial values to specific items of technical

work promotes perceptions of such work as being authentic. The authenticity

which GDPs place upon the technical quality of tangible dental procedures may

well have contributed to their continued commitment to this system of

remuneration, despite external attempts to reorient NHS dentistry towards

prevention for healthier, younger generations.

This social world has also been founded upon independence, both as a

characteristic of GDPs themselves, and as the predominant nature of their work

environment. This provides GDPs with potential to step out of the NHS system

if it does not meet the needs of their business, rather than being obliged to

negotiate improvements. A similar argument, discussed in detail in Chapter 7,

section 7.3.3.2.1, was made by Taylor-Gooby *et al.* (6) in their conceptualisation

of the professional ethos of dentistry and its influence upon dentists' decisions

about providing NHS or private dentistry.   The authenticity of the technical

aspects of dentistry is further validated by a broad hierarchy between primary

and secondary dental services, mentioned by some participants, in which the completion of additional training to acquire advanced technical skills is recognised, by the profession, with specialist status.

6.4.7.2 An alternative concept of dental care

Individual Entrepreneurs and Altruistic Carers did not appear to intend for their actions to deny or reduce access to PDC for Vulnerable Patients, but merely to situate the responsibility to provide that care with other dentists, on the basis that giving time and emotional support to certain patients was not deemed to be authentic to their role within their social world. Nevertheless these actions, when taken collectively, appear to produce the apparently unintended consequence of obstructing Vulnerable Patients' access to both social worlds. Furthermore, this consequence continues to occur despite the perception amongst Pragmatic Carers that providing time, empathy and emotional support during dental procedures is so inherent, or authentic, to their role that they are frustrated by their powerlessness to deliver it.

This alternative to the dominant concept of technical dental work appears to be founded upon 'relational interaction' (146: p.31), which Fletcher describes thus:

> 'Growth-fostering interactions are characterized by mutual empathy and mutual empowerment, where both parties recognize vulnerability as part of the human condition, approach the interaction expecting to grow from it, and feel a responsibility to contribute to the growth of the other. The ability to develop relationally requires certain strengths: empathy, vulnerability, the ability to experience and express emotion, the ability to participate in the development of another, and an expectation that relational interactions can yield mutual growth.' (146: p.31)

Fletcher argues that relational theory, conceptualised by Miller (234), contrasts with dominant expectations of the work environment, as it focuses upon working in collaboration to achieve collective personal development. This presents a

challenge to the dominant approach to work, which tends to involve competition

for individual recognition of the production of quantifiable outputs (146).

Relational work in which dentists forge empathic dentist-patient relationships

with patients whose lives, expectations and priorities differ markedly from

dentists' own, and provide time and emotional support to enable such patients

to cope with routine dental procedures can, therefore, be defined as Relational

Dental Care. The collaborative aspect of relational work can also be seen in the

efforts of senior and specialist community dentists to forge connections with

other dental, health and social care professionals across different organisations,

in order to improve patient care pathways.

6.4.7.3 The authenticity of Relational Dental Care

Thus, it would appear that, in both social worlds, the Pragmatic Carers who feel

that this form of interactive, caring and relational work is an authentic part of

their role, currently lack the agency to legitimise the use of time, empathy and

emotional support for Vulnerable Patients during dental care. In turn, this

implies that other social actors, whether dentists or not, hold the dominant

position of agency within their social worlds and influence the rules and

resources in such a way as to discourage the provision of Relational Dental

Care for Vulnerable Patients. This led me to consider how and why such

dominant and inferior concepts of authentic work may have developed in this

setting, in order to further critique role perceptions and referral practices within

PDC in England, and this is presented in the following section.

6.5   *Primary dental care explored through a Feminist Sociology of Work*

Whilst Relational Dental Care appears to have been normalised by some dentists, particularly those working in CDSs, other dentists, especially some GDPs, appear to distance themselves from it. Although GDPs often reported longstanding dentist-patient relationships and a sense of being trusted by their patients, this appeared to be a somewhat selective and relatively superficial arrangement. In order to understand why some dentists want to provide Relational Dental Care for all patients, in spite of a system which appears to discourage it, I explored the conflicted concept of caring as a component of their work, using the theoretical perspective of a Feminist Sociology of Work (146). This led me to explore issues relating to gender, work and healthcare, to further develop my interpretation of the findings of my research and offer a critique of the values underpinning PDC in England. I elaborate this interpretation in the following section and discuss the potential significance in Chapter 7.

Fletcher (146) claims that caring for people requires relational skills such as empathy, emotional effort and developing capacity in others. These are skills which are associated with females and with the private sphere of social life, in which women have long been expected to provide unpaid care for other family members (185). As such, these skills are perceived to be 'innate' (146: p.29) and are not awarded a financial value in the public sphere of the workplace. Thus, dentists' efforts to listen to people, reassure, build rapport, overcome people's fears and strengthen their coping skills - social actions perceived to be feminine and homely in nature - go unrecognised and unrewarded as authentic work in the context of their professional role. That is, delivering Relational Dental Care as a dentist in the PDC arena is rendered invisible to

commissioners and many dentists, as a result of masculine-dominated, socially-constructed cultural norms about work. Consequently, the technical, quantifiable version of dentistry, rewarded with defined financial gains, persists as the most dominant, authentic perception of the professional role of dentists in PDC. Whether one version is deemed to be more authentic by patients, whose social world is connected with dentistry through the private sphere of their lives, rather than the public sphere, cannot be established from this study.

6.5.1   Gender and the provision of Relational Dental Care

Amongst participants, in is interesting to note that all the Entrepreneur participants were male, and all, but one, of the Altruistic Carer participants were female, whilst Pragmatic Carer participants comprised similar numbers of male and female dentists. This suggests that, although empathy and caring are perceived to be feminine characteristics, in this study, they were in fact demonstrated by some men, as well as women. These characteristics were, however, rarely and reluctantly acknowledged by male participants; one dismissed his deeply-felt reasons for choosing a career in community dentistry as 'very touchy-feely' (participant CDS9). This is consistent with Fletcher's claim that public and private spheres are socially constructed concepts which have arisen as a result of 'preexisting, patriarchal, gendered division of labor that neatly fits with the goals of capitalism' (146: p.27). Hence, masculine- and feminine-attributed characteristics are not biological in origin but instead, based upon 'idealized' male and female gender roles (146: p.28).

In general, participating GDPs did not seem to confer upon community dentists the same status which they mentioned in relation to referrals to specialists in technical disciplines such as oral surgery, orthodontics or restorative dentistry.

Indeed, some GDPs were mildly derogatory when referring to community dentists, suggesting that these referrals were perceived as a delegation of work to people whose time was felt to be less valuable than their own, rather than being a request for assistance from a more skilled professional colleague. However, on the infrequent occasions when GDP participants credited community dentists with exceptional and admirable talents involving empathy, caring and communication, those talented community dentists were men. Although several participating community dentists were critical of GDPs for referring patients, rather than providing Relational Dental Care themselves, some seemed to excuse GDPs' actions by citing the structural constraint of the GDS contract. Certainly, for GDP participants engaged in private practice, their ability to quantify the value of their time within a private fee scale appeared to change their perception of its authenticity as an element of dental care. Conversely, many community dentists devalued their own efforts to provide Relational Dental Care in a system where it was not acknowledged, describing their work as routine:

'…it is just general dentistry…' (CDS 8)

Indeed, this personal explanation is consistent with more strategic accounts of the generalist, social safety-net function of the CDS, which has been described 'as the "Cinderella" of the dental world' (34: p.4), a term associated with female domestic labour, to be undertaken with no expectation of recognition, nor prospect of reward.

6.5.2   The invisibility of Relational Dental Care

The invisibility of Relational Dental Care appears to have developed through the agency of dentists and other social actors within the PDC arena, functioning

within a set of male-oriented cultural assumptions about authentic work. The

continued perception of Relational Dental Care as non-authentic is perpetuated

by structural factors, which have been shaped by, and continue to shape, this

social action. This process of non-authentication of Relational Dental Care is

illustrated in Figure 13 and described below.
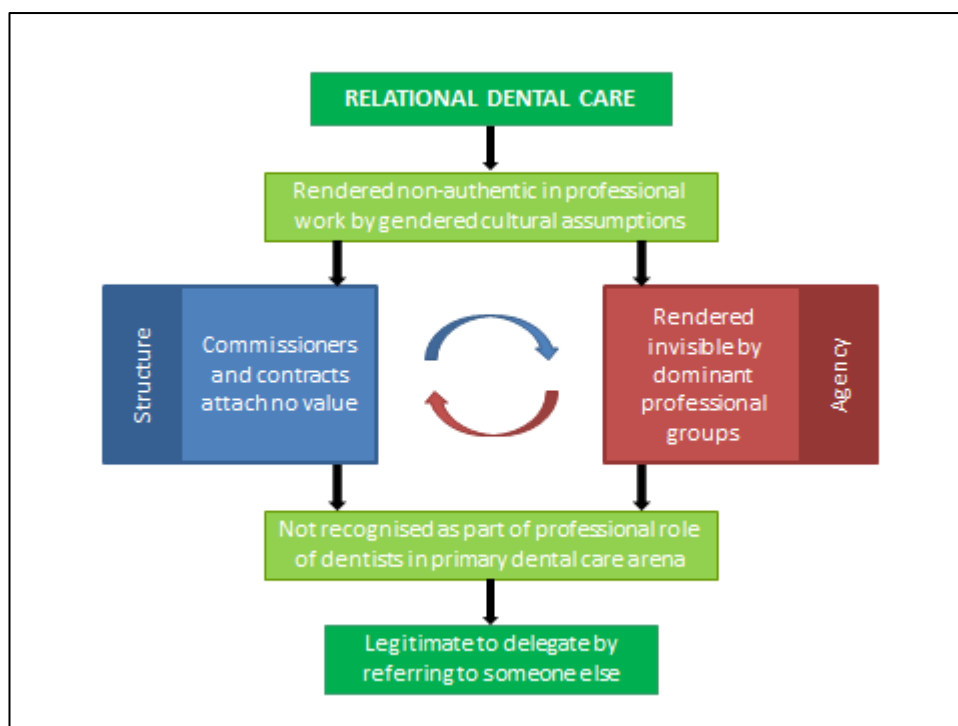
Figure 13: The process of non-authentication of Relational Dental Care

The failure of the GDS contract to recognise emotional effort, or the time

involved in providing it, was interpreted by some participants to mean that

GDPs are expected to provide it for no fee, and examples of this response were

shared by several participants. Other participants suggested that they

perceived an alternative interpretation, that GDPs are not required to provide

emotional effort at all, when treating patients under NHS terms and conditions.

Participants provided several examples of GDPs providing a different level of

emotional support and time to patients who could pay privately for their dental

procedures, a situation which they presented as being entirely legitimate and justifiable.

Less explicit, but equally endemic, was the apparently chronic shortage of staff and other resources to enable community dentists to provide Relational Dental Care to Vulnerable Patients, in particular. Inadequate staffing levels and restricted commissioning of services were reported, by some participating community dentists, to be reducing their capacity to provide Relational Dental Care for referred Vulnerable Patients, especially those who could have benefitted from access to domiciliary care and mobile support. Chronic under-resourcing of CDSs also appeared to be contributing to demoralisation, for some participants, who felt restricted from doing work which they were willing to do, and responsible for the resultant delays in delivering patient care. Some participants mentioned the difficulties CDSs experience in recruiting and retaining community dentists, suggesting that some recruits were not comfortable with the nature or rewards of the role. Overall, these commissioning and resourcing decisions imply that commissioners or policymakers attach little value or importance to the efforts of community dentists, especially generalists who perceive a need for Relational Dental Care amongst Vulnerable Patients.

6.6 Summary

In this chapter, I have interpreted from the interview study findings to develop typologies of dentists and patients within PDC in England. The socials worlds in which these dentists and patients are social actors have been illustrated using SW/AT. The means by which social actors influence rules and resources in the PDC arena have been proposed, by considering the findings from the

theoretical perspective of Structuration Theory. I have argued that professional recognition and the attribution of monetary value to technical work, rather than caring work, predominates within this arena. In turn, this approach perpetuates structural restrictions upon the ability of willing members of the dental profession to provide Relational Dental Care for certain groups of vulnerable people in society. Drawing upon a Feminist Sociology of Work, I have theorised that the gendered association of caring roles with femininity and the unpaid, private sphere of home life, has contributed to the persistent dominance of a technical, business-orientated culture within PDC, rendering Relational Dental Care invisible, despite many dentists recognising its value, especially for Vulnerable Patients. This, in turn, has led to a lack of consensus regarding professional responsibility for the care of Vulnerable Patients within PDC in England.

In Chapter 7, I will discuss the implications of these findings for patients and for the delivery of PDC in England, in the context of the systematic review findings and literature relating to current policy and other sociological perspectives relating to the provision of PDC in England. I will identify the contribution to knowledge made by this study and consider its strengths and limitations, before making recommendations and drawing conclusions from this research.

Chapter 7   Discussion and Conclusions

7.1 Introduction

In Chapter 6, I drew upon three sociological theories in order to interpret the findings of the interview study. In this chapter, I will relate the findings and interpretation of the interview study to the systematic review findings, as well as relevant policy developments and sociological literature. I will discuss the implications of the findings for policy, practice and dental education and consider the contribution of this study to knowledge about professional roles and referrals within PDC in England. I will review the strengths and weaknesses of this study, before making recommendations for future research and concluding this thesis.

7.2 Summary of findings

7.2.1 Summary of systematic review findings

The literature illustrated that three main referral pathways existed within PDC in the UK, with the majority of the articles relating specifically to England. Referrals through these three pathways were made for contrasting reasons and the pathways operated differently, whilst sharing some common features.

Referrals from GDPs to the CDS usually occurred when GDPs felt patients needed more support to achieve their routine dental treatment than other patients. Such referrals generally related to potentially vulnerable individuals, particularly children, anxious adults and frail, older people. Referral decisions were influenced by GDPs' willingness and perceived ability to support patients to manage routine treatment, in the context of running the dental practice as a business. Problems with this type of referral were associated with variations in dentists' perceptions about how much time and effort GDPs should spend on

helping patients who needed a little more support, but might not require sedation or GA to receive treatment.

Referrals from the CDS to GDPs usually occurred in response to national policies, which were designed to reorient limited healthcare resources towards different patient groups. Unlike other pathways, these referrals involved the permanent handover of responsibility for the care of entire groups of patients from community dentists to GDPs. Problems occurred because these policies did not fit with the values and priorities of some dentists and patients, who were reluctant to accept the change. In addition, health service managers were unable to influence dentists to implement the policy.

Referrals from GDPs to specialists, based in primary care, generally related to specific treatments, rather than patient groups. Referral decisions were influenced by GDPs' perceptions of the availability, accessibility and quality of care and GDPs' assumptions about patients' priorities. Problems occurred when specialist services were not coordinated between primary and secondary care, thus putting secondary care specialist resources under pressure. Referrals to specialists based in primary care operated well for all concerned when the referral services adopted a cost-effective business model which was coordinated with secondary care.

In all three main referral pathways, dentists exercised considerable autonomy in order to influence the referral process, when making and receiving referrals within PDC. They achieved this by choosing whether or not to discuss the option of referral with a patient (or their representative), or deciding whether to accept or reject referrals for individual patients, before or after meeting the patient in person.

GDPs' decisions about making referrals were strongly influenced by non-clinical factors, particularly their assumptions about the availability of referral services, the financial consequences of referral decisions and their perceptions of their own professional roles. Community dentists' decisions about accepting or rejecting referrals were primarily influenced by their own values and perceptions of their roles, and their assumptions about the roles of GDPs. Both GDPs and community dentists appeared to experience role conflict and ambiguity, as defined by Kahn *et al.* (135), which influenced their referral decisions.

7.2.2 Summary of interview study findings

7.2.2.1 Themes

All participants perceived themselves to be professionals who took responsibility for their patients' dental care, could be trusted by patients and who were entitled to clinical autonomy. Their commitment to the NHS was variable. Participants aimed to deliver quality care, a concept which ranged from holistic care to technical excellence. The degree of disconnection between GDPs and community dentists was pronounced. Even within each aspect of PDC, many participants indicated their isolation from colleagues, sometimes by choice. GDPs were conscious that they delivered dentistry within a business model, with its associated financial priorities. Conversely, community dentists operated within extensive healthcare organisations which had restricted resources and obscure rules of management.

Many participants were aware that certain patients could be time-consuming to manage. Some GDPs and community dentists felt that it was not their role to provide dental procedures for such patients; others reported feeling willing, but sometimes unable, to do so. Participants from both settings cited structural

reasons for making, or declining, referrals for this group of patients.   Some

participants did so reluctantly and recognised that this could force such patients

into a No Man's Land between the two settings of PDC.

7.2.2.2 Role perceptions

GDPs and community dentists perceived the role of GDPs to involve providing

dentistry for the majority of patients, usually over a period of many years.

However, there were differences in dentists' perceptions of the boundary of this

role in terms of GDPs' responsibilities to provide care for patients who needed

some time or support from the dentist in order to cope with NHS dental

treatment. Many community dentists indicated that they felt some GDPs were

not offering such patients as much time and support as they should. GDPs

themselves located this boundary in a different position for patients who were

paying private fees for their dental care, for whom they were willing to provide

more time and support.

GDPs expected community dentists to be especially talented in supporting

anxious, uncooperative or medically-compromised patients of any age and

providing treatment promptly, calmly, quickly and close to patients' homes.

However, for community dentists, providing this type of personalised, Relational

Dental Care was considered to be an entirely normal and rewarding basis for all

dentists' professional roles. Therefore, it was not perceived as a special skill

and, consequently, it was not considered sufficient reason, in its own right, for a

patient referral to be made, or accepted, especially in light of increasingly

stringent eligibility criteria. Instead, community dentists described their roles in

relation to the complexity of their patients' additional needs, which could be

mental, physical, sensory, behavioural or social in nature.

7.2.2.3 Interpretation from the interview study findings

Three typologies of dentists were identified: Entrepreneurs, Pragmatic Carers and Altruistic Carers. Interpretation of the findings in relation to Strauss's SW/AT showed that the social worlds of general dental practices and the CDS operate almost entirely separately within the arena of PDC. Using Giddens's Structuration Theory, it was demonstrated that GDPs and community dentists have a significant, but variable, level of agency to influence the rules and resources which structure PDC, with Pragmatic Carers appearing to have the least agency. The dominance of the concepts of technical dental care, and more recently, dental care for complex patients, not only fits with the current structure of PDC, but also maintains this structure, rendering Relational Dental Care non-authentic to the role. Applying a Feminist Sociology of Work, it can be argued that this arrangement may stem from the association of the relational components of dental care with apparently feminine characteristics. These are culturally attributed to the private sphere of the home, rather than the public sphere of work, resulting in relational work being unrecognised and unrewarded.

7.3   Discussion of interview study findings

In the following sections, the findings and interpretations from the interview study will be considered in relation to the systematic review findings, relevant current policies and two additional aspects of sociological literature.

7.3.1   Interview study findings in relation to systematic review findings

7.3.1.1 Disparate professional groups

A longstanding sense of disconnection between GDPs and community dentists was apparent in the findings of the systematic review (71, 100) and the

interview study. A differing set of values and priorities for the two groups was also noted in both sets of findings. GDPs appeared to focus upon the financial implications of providing certain types of dental care for some patients, when making their referral decisions (21). Consequently, GDPs generally expected to refer patients who required some support to cope with routine dental procedures, including additional time or emotional support, with some variations in the level of support which they were prepared to offer. Community dentists sought to prioritise holistic care for particularly Deserving Patients, leading them to denounce some referrals for less complex patients as being inappropriate for the CDS (90).

7.3.1.2 Individual role conflict for Pragmatic Carers

Synthesis of the literature included in the systematic review suggested that there had been conflict and ambiguity (135) regarding the roles of primary care dentists in the UK, which had influenced referrals within PDC (87, 91, 101). The findings of the interview study confirmed that many participants, especially those who were Pragmatic Carers, experienced role conflict in their professional work. This was related to their perceived obligation to provide Relational Dental Care for Vulnerable Patients, despite structural barriers to this type of work, in the form of the GDS contract for GDPs and constrained resources and eligibility criteria in the CDS.

When comparing findings from the systematic review and the interview study, the interview study findings suggested that role conflict may have increased over recent decades. Examples of role conflict for community dentists in the late 1980s and early 1990s indicated that community dentists declined to implement certain policy requirements because they were in conflict with their

own personal values (99, 100). In contrast, participants from the interview study

referred to recent situations where they were obliged to proceed with actions

against their values, by declining to see certain patients or by being unable to

offer care which they were sufficiently skilled to provide, due to restrictions upon

the official remit of their CDS. Similarly, some GDPs compared past flexibility

within the GDS contract with the rigidity of the current contract, explaining how

this now reduced their personal capacity to act in patients' best interests. This

was consistent with more recent literature from the systematic review which

also considered the impact of the 2006 GDS contract (21).

7.3.1.3 Contested professional remits

Both the systematic review and the interview study also showed that

responsibility for the dental care of certain groups of Vulnerable Patients was

contested by interview participants and by dentist-authors of some of the

literature included in the systematic review (80, 82, 90, 94-96). These groups

were consistently reported to include (although they were not limited to):

- Children and adults with extensive dental decay and/or needing any help
  to cope with treatment or anxiety;

- Older people who were becoming frail and needed to be treated at home.

Additionally, participants in the interview study also offered contrasting

viewpoints about who should care for another group of Vulnerable Patients:

people who struggled to cope with everyday life, reliably attend appointments,

maintain their oral health or fund regular dental care. A common feature of

vulnerability appeared to be social exclusion, however, very few participants

overtly used this term. At one end of the spectrum of dental patients,

Vulnerable Patients were depicted as almost indistinguishable from the

Appreciative Patients who regularly frequent general dental practices, except in their ability to pay private fees. At the other, Vulnerable Patients appeared to merge with a more clearly defined group of Deserving Patients whose lives were more complex as a result of individual conditions, and for whom the responsibility was definitively placed with the CDS.

Overall, the systematic review provided a sense of the scale and chronicity of the issue of contested responsibilities within PDC in the UK. It also illustrated the consequences of this issue for patients (waiting, rejection of referral, inability to access a service) and the people and organisations responsible for providing dental referral services (ethical unease, insufficient capacity) (64, 91, 94, 99). However, the interview study provided a more detailed account of the dilemmas which GDPs and community dentists faced, in England in 2016, when deciding who should manage patients' dental care.

Neither the systematic review, nor the interview study, provided a distinct division between the roles of GDPs and general dental practices, and the roles of generalist community dentists and the CDS. One dentist's difficult patient could be another's straightforward patient (80, 82). This is perhaps unsurprising, given the diversity of dentists' experiences of working in dentistry in different areas and at different stages in their careers, and the unique nature of each individual patient. However, participants from both groups described feeling systematically discouraged from accepting responsibility for Vulnerable Patients. Therefore, rather than creating two overlapping settings, in which Vulnerable Patients were welcome to access either one, this vague boundary appeared to create in a gap between the two settings, often leaving Vulnerable Patients unwelcome in both settings.

7.3.1.4 Collective role ambiguity in the CDS

Whilst the systematic review suggested that dentists may experience role ambiguity (77, 86, 135), in contrast, the interview study indicated that individual participants were generally very clear about their own perceived roles, and that ambiguity was not a concern for them. However, the diversity of participants' descriptions of their perceived roles, and those of other dentists, suggested that, across the whole profession, ambiguities do exist around the concept of the role of community dentists and of the CDS as a whole. This could contribute to tension within the profession, as some GDPs appeared to hold unrealistic expectations about community dentists and the remit of the CDS, whilst few had personal experience of working in the CDS. Similarly, differences in community dentists' own expectations appeared to cause frustration when they found that there were inconsistencies between the services provided by different CDS organisations, as well as variations in the range of skills generalist community dentists were permitted to use.

7.3.2   Interview study findings in the context of current policy

The four key findings of the interview study, described in section 7.3.1, can be considered in the context of five dental and healthcare policies, notably: values-based recruitment, the GDS contract, commissioning the CDS, the development of MCNs and specialisation the CDS.

7.3.2.1 Values-based recruitment into healthcare and dentistry

The systematic review and interview study highlighted the diverse values held by dentists working in PDC in England. In particular, it was noticeable that the values which motivated Pragmatic Carers related to social responsibility for the wider community. For Altruistic Carers, their values related to caring for people

whose lives had been complicated by severe impairments and medical conditions. Data from the interview study suggested that some of the participants were aware of holding these values prior to starting their dental education, whilst others became aware of them during or shortly after their undergraduate training, and this awareness often resulted from interactions with vulnerable people or dental educators. This led Altruistic Carers to actively pursue a career in community dentistry, whilst for some Pragmatic Carers it influenced their personal priorities when deciding how best to approach their career in general dental practice. Given the particular commitments of both these typologies of dentists to providing dentistry for those who are often in great need of treatment and support, it could be argued that it would benefit patients, and PDC, to encourage people who demonstrate characteristics such as empathy, and who are motivated by caring and social responsibility, to take up a career in dentistry. Whilst this is unlikely to overcome the disparity in dentists' values across the profession described in section 7.3.1.1, given the strength of dominant cultural perceptions of dentists, it may rebalance dentists' collective agency towards an empathic, relational approach to providing dental care.

The NHS and Health Education England have recently adopted a Values Based Recruitment Framework as an approach to the recruitment of NHS staff, as well as students whose healthcare education or training is funded by the NHS (235). This framework is part of a strategy developed to create a workforce of people who possess 'the right values to support effective team working and excellent patient care and experience' for patients (235: p.5). It is consistent with the findings of Patterson *et al.*, who reviewed the literature relating to values-based recruitment, in which 'values are consistently defined as a set of *enduring*

beliefs which a person holds about what is good or desirable in life' (236: p.860, authors' emphasis). They also claim that values are learned at a young age but may be modified by social situations in adulthood (236). Thus, it is preferable to recruit people into healthcare professions who value compassion, and to ensure that healthcare environments are supportive of such values (236). Values-based recruitment is being rolled out in the Dental Core Training application process for new dental graduates from 2017 (237). Given this recent introduction of values-based recruitment of new dental graduates, the impact of these policies cannot be known for several years.

In recent years, elements of values-based recruitment have been incorporated into dental school selection processes, including structured interviews designed to detect 'innate characteristics' such as 'sensitivity to others' (238: p.130). More generally, the UK Clinical Aptitude Test (UKCAT), was developed in recognition of the need to look beyond academic attainment and to consider 'the "softer skills" required in dentistry' (239: p.687). The UKCAT has been used in shortlisting and selecting applicants for UK medical schools (235), and some dental schools, since 2006 (240). A situational judgement component was added to the UKCAT in 2013 (240), in order to assess prospective students' abilities 'to understand real-world situations and to identify critical factors and appropriate behaviour in dealing with them' (239: p.687).

However, dental schools can use information from the UKCAT in different ways and some dental educators have questioned the validity of clinical aptitude tests for predicting performance at dental school (239). Others have raised concerns about using a computer-based test to assess prospective dental students' personal attributes, rather than the structured interview approach described by

Kay *et al.* (238), as the UKCAT only assesses a limited range of non-cognitive characteristics (241). Furthermore, it is acknowledged that even with the more reliable methods, such as structured interviewing, situational judgement tests and the use of selection centres, 'susceptibility to coaching' remains a possibility (235: p.65, 236). Very few of the participants in the interview study would have completed the UKCAT as part of their selection process, and it is not possible from this study to hypothesise the extent to which its use has promoted the selection of dental students who demonstrate '[e]mpathy and pro-social behaviour' in recent years (241: p.2).

7.3.2.2 The 2006 GDS contract

Participants in the interview study consistently explained how the present GDS contract discourages GDPs from treating Vulnerable Patients and providing Relational Dental Care, even for GDPs who express their willingness to do so. This was a key issue for Pragmatic Carers who experienced role conflict as GDPs, as noted in section 7.3.1.2. The contract has been widely criticised for failing to remunerate GDPs in proportion to the amount of time and dental treatment a patient is deemed to require and for failing to remunerate GDPs for any form of preventive care (12, 21, 28).

The impact of financial levers upon the activity patterns of GDPs was evident in the findings of the systematic review and the interview study. Perceptions of inadequate remuneration for specific items of work appeared to discourage GDPs from spending time providing preventive advice and care, and to promote referral of patients with extensive or potentially time-consuming treatment needs (21, 24, 78). Epidemiological data indicates that poor oral health is associated with deprivation (12, 242, 243). Therefore, Vulnerable Patients, many of whom

were recognised by interview participants to be living in socially-excluded and

deprived circumstances, are likely to be disproportionately under-served by the

existing contract.

Some dentists responded to contractual concerns by reducing or withdrawing

from their NHS commitment and focusing upon private dentistry (12, 23), an

outcome which was also reported by several participants in the interview study.

The Steele Review proposed a revised contract which was intended to

reconfigure the remuneration system for GDPs to resolve its unintended

consequences (12). A range of alternative contracts have been piloted since

the Steele Review was published (25). However, the 2006 GDS contract

remains in place at present, along with its consequent barriers for Vulnerable

Patients, who usually have limited incomes which prevent them from accessing

private dental care.

7.3.2.3 Commissioning the CDS

In 2013, the NHS Commissioning Board, proposed to create a 'care pathway

approach' to NHS dental service provision, to 'ensure consistency in delivery of

dental services both in the sequencing, effectiveness and quality of clinical care,

the "journey" that patients' [*sic*] experience, and a focus on patient outcomes'

(35: both p.6). This approach was founded upon collaborative working between

dentists and commissioners via LDCs and Local Dental Networks, such as

MCNs (35). Thus, it was contingent upon the success of MCNs, discussed in

section 7.3.2.4 below, for its own progress. The responses of community

dentist participants in the interview study suggested that this was progressing

more effectively in areas where care pathways were already perceived to be

coordinated, than in areas which were characterised by fragmentation and

disruption of care pathways across multiple providers in primary, secondary and tertiary care.

Furthermore, this policy emphasises that the CDS should 'primarily provide specialist-led special care and paediatric dental services for people with additional care needs', making no mention of vulnerable patients (35: p.15). It also positions CDSs as a separate level of service, which is situated between primary and secondary dental care. Commissioning therefore appears to have moved away from the broad concept of the CDS laid out by NHS Primary Care Commissioning (34) in their Toolkit for Commissioners of Salaried Primary Care Dental Services, which included a safety-net function.

7.3.2.4 Managed Clinical Networks of GDPs and community dentists

Several senior community dentists reported that they were closely involved in establishing MCNs in their regions. NHS England is in the process of publishing a series of policy documents, set out as guides to support commissioners to create MCNs between GDPs, DwSIs and specialists in several dental specialties, including Special Care Dentistry (8, 231). The concept of local networks within PDC was also proposed by Steele *et al.* (12). The aim of these policies is to coordinate patients' care pathways between PDC and specialist services by creating networks of dentists who will collaborate to deliver dental care at three levels of complexity (8). Level 1 represents the skill level of a recently qualified dentist, whilst Level 2 describes an additional level of skill which develops with experience and interest, and Level 3 care requires specialist training (8). However, the translation of clinical networks as a collaborative working arrangement from a medical context into the PDC arena

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appears to be subject to a series of hurdles to its acceptance and success, as described below.

The concept of professional or clinical networks is broad, but is fundamentally based upon multiple healthcare organisations working towards shared goals which are consistent with policy directives (244). Sheaff *et al.* (244) produced a social network analysis and systematic comparison of professional and clinical networks in UK health and social care settings. They reported that, for a successful network to be created, 'network members' goals in joining the network must at least be compatible, if not complementary or congruent', both at the level of the individual and the organisation (244: p.33). Shared goals can relate to 'common "values"…or to shared economic interests' (244: p.34). My interview study findings suggest that for some GDPs and community dentists, their goals are not shared, and are currently, and historically, incompatible with being shared. Sheaff *et al.* found that:

> 'Members' engagement with networks partly depended upon whether participation in the network appeared to help them meeting targets, mandates and incentives generated outside the network (for organisations) or in terms of their personal interests and opinions (for individuals).' (244: p.18)

The interview study findings suggested that GDPs did not feel incentivised to engage with MCNs. This appeared to occur because neither the GDS contract, nor the dominant concept of GDPs' own professional roles recognised, or attributed a value to, the relational work which the Special Care Dentistry MCN requires of GDPs at level 1. Consequently, the remits of GDPs and generalist community dentists were conflicted and contested, as elaborated in section 7.3.1.3.

The success of networks is also predicated upon well-respected network members developing and maintaining relationships between members (244). Fletcher (146) claims that this relies upon recognising, rewarding and retaining people in the network who have the skills to nurture relationships. Several participating community dentists, who were attempting to act as '"boundary-spanning" network members' (244: p.37), reported a pervasive lack of GDP engagement in talks about setting up MCNs. The findings of the interview study also indicated that many GDPs were unwilling to collaborate in partnership with other dentists, and that some were particularly disengaged from community dentists. A contributory issue may have been senior community dentists' lack of agency to influence the GDPs upon whom the network will partially rely. John *et al.* (245) reported experiencing similar setbacks in communicating with GDPs and engaging their support, when setting up a similar Local Dental Network in the south of England. Not only were they unable to recruit GDPs as network members, possibly 'due to the lack of resources to fund backfill arrangements' (245: p.2), they also struggled to engage other GDPs as stakeholders, just as the interview participants reported.

The MCN policy documents (8, 231), rather like the participants of the interview study, classify patients according to whether they are vulnerable, usually through social exclusion, or whether they have additional needs as a result of individual impairments or medical conditions. Whilst the policies acknowledge that vulnerability presents challenges for dentists, it is inferred that GDPs are expected to accommodate for this, as vulnerability does not confer eligibility for any level of Special Care Dentistry.

Conversely, patients with additional needs resulting from impairments or medical conditions (identified by interview participants in my study as Deserving Patients) may be eligible for Special Care Dentistry at one of the three levels (231). However, Level 1 of this MCN is intended to be provided by any qualified GDP, regardless of special interest or experience, and requires dentists to 'make reasonable adjustments to facilitate access for Special Care Dentistry patients in terms of time, equipment and facilities' (231: p.14). This contrasts markedly with the perceptions of GDPs, in the interview study, that it was not their role to provide additional time or support, suggesting that implementing this policy will generate further role conflict for GDPs. Additionally, in the MCN guidelines, older people and people with mental health problems may be identified as both vulnerable people and as people with additional needs, thus creating further ambiguity about their eligibility for Special Care Dentistry (8, 231). This confusion is paralleled in the systematic review and interview study findings, where responsibility for frail, older people, anxious patients and socially-excluded people requiring extra time for their care, was contested between GDPs and community dentists.

7.3.2.5 *Specialisation within the CDS*

The interview study findings showed that there was considerable overlap in the nature of the work described as being carried out by generalist and specialist community dentists in different CDSs, creating role ambiguity for dentists working in the CDS, as detailed in section 7.3.1.4. One factor contributing to this issue may be the relatively recent recognition of the specialties of Paediatric Dentistry in 1998 (48) and Special Care Dentistry in 2008 (49), by the GDC (246). The development of these specialties may have promoted, or been

promoted by, the reorientation of CDSs as specialist services, focusing upon Paediatric and Special Care Dentistry.

During this period, it was recognised that the roles of specialists and generalists would need to be clarified, as some initial overlap was inevitable (2247). As several senior community dentist participants highlighted, many older community dentists developed extensive skills through experience rather than specialty training. Participants suggested that these dentists remained as generalists when the new specialties were created. When access issues led to the prioritisation of the safety-net aspect of the CDS, more generalists were recruited to work alongside existing community dentists and, like several participants, some stayed and became incorporated into the CDS over time (247). It has been recognised for some time that this enabled some community dentists to flourish, whereas others 'found themselves filling gaps in services locally, effectively because of deficiencies in the way that the GDS operates', with little credit and low morale (247: p.2). Furthermore, some participants indicated that their CDS was still reliant upon generalists to provide the majority of their patient care, reserving specialist capacity for patients with especially complex care needs, because specialty training posts and specialist dentists were so limited in number.

Consequently, when contractual agreements for community dentists were revised in 2007, there was a focus upon extending community dentists' skills to meet the needs of the CDS, and a recognition of the role of specialists in the CDS (39). This was not a proposal for a transition to an entirely specialist-level CDS workforce but rather to recognise the role of generalists in the CDS by merging small CDSs to increase 'critical mass' (247: p.8), thereby generating

opportunities for generalists to develop special interests. Thus, there has been

acknowledgement of a continuing requirement for generalist community dentists

in the CDS, despite the lack of clarity over their professional roles. However,

most of the generalist community dentists who participated in the interview

study appeared to remain disillusioned and despondent about the current

constraints upon their professional roles and career development, suggesting

that this contractual review had not been entirely successful in improving morale.

7.3.3   Interview study findings in the context of key aspects of sociology

Two additional aspects of sociological literature merit further discussion in

relation to the study findings; these are power and motivation in professional

roles. Firstly, I will refer to Nettleton's study of dentistry (144), which drew upon

Foucault's concept of 'disciplinary power' (248: p.170) through knowledge and

surveillance. Secondly, I will compare the findings of my interview study with

research into dentists' motives for providing private dentistry, conducted by

Taylor-Gooby *et al.* (6).

7.3.3.1 Power in the dentist-patient relationship

Nettleton's (144) study of dentistry applied Foucault's theory that power

generates knowledge, whilst knowledge also generates power (248). Thus,

through their knowledge of the structures and diseases of the teeth and mouth

acquired through formal education, Nettleton (144) illustrated how dentists are

permitted to explore their patients' oral cavities, to record and alter the condition

of the teeth and mouth, to instruct patients on the maintenance of their oral

health and to monitor and comment upon patients' success, or otherwise, in

doing so. Dentists can also experiment to compare or test alternative

interventions upon individual patients' mouths, and they may survey the wider

population, collating information about people's oral conditions to create

knowledge about the oral health of the general public (144). Furthermore, this

additional knowledge legitimises dentists in taking action, or instructing others to

take action, to modify how people perceive and manage their own teeth and

mouths, including educating people about their everyday actions such as eating

and personal grooming, usually with the intention of rendering people's oral

health closer to dentists' ideals (144).

7.3.3.1.1   Social context and the dentist-patient relationship

Only latterly, argued Nettleton, have dentists moved their 'gaze' (144: p.94),

from observations of the mouth and teeth, towards patients' social

circumstances. Thus, she claimed, the profession has begun to recognise the

social context of dental disease and, incidentally, the significance of sociology

within dentistry (144). However, Nettleton also concluded that, at the time of

her research, dentists had not yet linked the importance of patients' social

circumstances with their own failure, as a profession, to eradicate oral diseases

through instruction and education (144). Indeed, she suggested that dentists

have made assumptions that the causes of poor oral health are external to

patients' lives and therefore under patients' own control, rather than being

inextricable from the social fabric of patients' lives (144).

7.3.3.1.2   Interview study findings in relation to Nettleton's study

Nettleton's study was conducted some 30 years ago and the ethnographic

element was confined to a single dental practice (144). In comparison, this

thesis highlights the diversity of GDPs' approaches to dentistry at present and

also introduces the CDS as an alternative setting within PDC. However,

Nettleton's conclusions can be considered in the context of the interview study

findings. The divergent social circumstances of Vulnerable Patients and dentists may have contributed to some Entrepreneur participants' evident frustration when such patients did not appear to value their work or follow their advice. In contrast, Pragmatic Carers' recognition and acceptance of their patients' social circumstances resonated with Nettleton's (144) suggestion that the profession has begun to move away from blaming patients for their poor oral health.

7.3.3.1.3   Interview study theoretical perspective in relation to Nettleton's study

Nettleton's Foucauldian analytical approach has parallels with Giddens's Structuration Theory. Both Foucault and Giddens constructed the concept of power in terms of agency; that is, power involves the capability to act within a social context (161). Foucault argues that:

> '…power is not an institution, and not a structure; neither is it a certain strength we are endowed with; it is the name that one attributes to a complex strategical situation in a particular society.' (249: p.93)

Giddens elaborated this point by explaining that '"control" …[is] the capability that some actors, groups or types of actors have of influencing the action of others' (161: p.283). Nettleton (144) focused upon dentists' power over patients through their knowledge of the mouth and teeth and methods to prevent disease, pain and anxiety. By applying Giddens's Structuration Theory to my own analysis, I have described how participants also exercised power over their patients through their knowledge of, and their ability to influence, the referral systems within PDC. Thus, dentists can control patients' access to PDC, including the dental care options which are (or are not) offered to patients, as well as the people and organisations from which patients are (or are not) permitted to receive care.

7.3.3.2 Dentists' motives for providing private dentistry

In the late 1990s, Taylor-Gooby *et al.* (6) investigated 'dentists' motivations in choosing between NHS and private practice' and related this to dentists' 'professional culture' using a questionnaire and a qualitative interview study (6: both p.376). Consequently, their findings pre-date the 2006 GDS contract; however, significant parallels can be drawn between my interview study findings and the situation which Taylor-Gooby *et al.* (6) depicted almost 20 years earlier.

7.3.3.2.1   Altruism, self-interest and the professional ethos of dentistry

Le Grand (230) theorised that people's motives regarding the welfare state may be 'public-spirited or altruistic', like '*knights*', or they may derive from 'their own self-interest', like '*knaves*' (230: all p.154, author's emphasis). He also proposed that people could, alternatively, be 'passive or unresponsive – neither knights or knaves, but *pawns*' (230: p.154 author's emphasis). Applying this theory to dentists, Taylor-Gooby *et al.* (6) argued that dentists' transitions into private dentistry may have been motivated by knightly intentions (because it enabled them to provide better treatment for individual patients) or knavish intentions (because it generated more income). It has been established that GDPs responded to new financial incentives by reducing their delivery of advanced and time-consuming NHS dental treatments and increasing their provision of simpler procedures (21, 24). They increased their private workload and continued to treat most of their existing, regular patients; however, they did not seek to expand their provision of simpler procedures to include a new, wider group of patients, as the Department of Health intended (23, 24). These findings were consistent with the theme of dentistry as a business, as identified in the interview study. This could be interpreted as a knavish, self-interested response to the perverse incentives of the 2006 GDS contract. Moreover, in the

interview study, some participants' sense of professional obligation to people outside their regular patient base, in parallel with their commitment to Relational Dental Care, appeared to be weaker than their motivation to maintain a successful business. These national data trends suggest that this balance may well lean towards financial priorities in the dental profession more generally.

The use of the term altruism by Taylor-Gooby *et al.* (6) differed from the interpretation used in my own research findings. Indeed, the authors emphasised that their specific interpretation of altruism was predicated upon a professional ethos of dentistry which, they argued, 'values individual restorative practice, carried out in a small business setting, as in the interests of patients' (6: p.380). They suggested that this philosophy was itself underpinned by 'the need to establish and maintain a stable market for these services' (6: p.377). Therefore, dentists' knightly intentions were not associated with preventing the population from experiencing dental disease, as this was not consistent with their professional ethos, which was focused specifically upon treating existing dental disease for individuals. Thus, the altruism described in GDPs by Taylor-Gooby *et al.* (6) was not the same altruism I identified in Altruistic Carer participants in my interview study. This is because the former concept did not require dentists to forgo the financial reward of private dental fees, nor to provide dentistry for people whose complex conditions precluded their attendance in general dental practices, unlike my interpretation in relation to Altruistic Carers.

7.3.3.2.2 The transition towards private dentistry

The 1990 contractual change attempted to move dentists' responsibility beyond simply getting patients back to dental fitness, towards using preventive care

methods to keep patients dentally fit (17). Taylor-Gooby *et al.* (6) argued, on

the basis that this did not fit with the restorative ethos of the profession, dentists

used their agency to reject the contract, by transitioning into private dentistry.

They found that, by 1997, moving into private dentistry was an established trend

(6). In addition, they established that dentists were more committed to the

concept of 'autonomy, both in clinical decisions and in relation to business' than

they were to the NHS (6: p.385). Whittaker and Birch (23) detected a similar,

although less striking, trend after the introduction of the 2006 GDS contract.

Both studies are consistent with my interview study findings, in which dentists

prioritised delivering high quality dentistry over working within NHS regulations.

Indeed, Taylor-Gooby *et al.*'s interview participants clearly blamed the

'unworkable' (6: p.388) GDS contract for their moves towards private dentistry

like many of the GDP participants in my interview study.

Taylor-Gooby *et al.*'s (6) study inevitably involved GDPs, rather than community

dentists, and therefore offers no comparative insight into community dentists'

motives which, in my study, were found to differ from those of some GDPs.

Their participants highlighted that, in general dental practice, 'if you are not

working hand to mouth, you are not earning' (6: p.391), which is fundamental to

a professional ethos based upon providing restorative treatment in an

independent small business. This echoes the focus of Entrepreneurial

participants' perspectives about dentistry in my own study, whose responses to

the disconnection of remuneration from the quantity of treatment items provided

in the 2006 GDS contract demonstrated that, as in the 1990s, many dentists felt

threatened by this change and responded by rejecting the contract, to a greater

or lesser extent. Taylor-Gooby *et al.* (6) concluded that 'conflict [is] inevitable

when government seeks to change the fundamental orientation of dentistry, because to do so is to challenge both practice and ethos' (6: p.393).

7.3.3.2.3 The contradiction between providing dentistry and improving dental health

Taylor-Gooby *et al.* (6) demonstrated that the professional ethos of dentistry ran counter to government objectives to improve the oral health of the population. This is due to its focus upon autonomous dental practitioners providing technical, restorative items of work to individual patients in small, independent businesses (6). Consequently, they argued that the only way to progress government objectives would be to move away from the entrenched business format of dentistry, and proposed three possible alternatives:

- Moving to the medical general practice model, which could provide financial security and encourage dentists to engage dental care professionals and focus on prevention;

- Using the legislation which facilitated the development of Personal Dental Services; and

- Increasing the use of salaried posts in the CDS (6).

The latter two options were used, to an extent, in subsequent years, and some of my interview participants reported having worked in such roles, whereas the former approach does not appear to have been attempted. However, the overall findings of my interview study suggested that the professional ethos of dentistry continues to revolve around technical dental care and independent business. Certainly, this is the expectation of the Office of Fair Trading (28), which recommends that the UK dental market is opened up to increase competition. It is unclear whether the expansion of corporate bodies into

dentistry has altered dentists' knightly or knavish motives. Given that some of my participants suggested dentists' private and NHS workloads may be decided by corporate management, rather than associates themselves, Le Grand's (230) theory would suggest that this development may, instead, position some associates as passive pawns.

7.3.3.2.4   The future of dentistry in general dental practices

Taking into account improvements in population health, the conclusions of Taylor-Gooby *et al.* (6) brought into question the future of dentists' professional ethos. This ethos has relied upon the 'heavy metal generation' (12: p.12) which, having been created by the individualised, restorative model of dentistry (6), provided a stable market for its continued existence. Even in the 1990s, the cost-effectiveness of treating patients under the GDS contract was perceived by dentists to be in question (6).

Two decades later, it is likely that, as this generation ages (12, 250), many long-term Appreciative Patients will become frail, Vulnerable Patients, no longer easily treated in general dental practices, especially under NHS terms and conditions. The majority of the next generation, having benefited from the introduction of preventive measures such as fluoride toothpaste, are unlikely to require the same restorative approach in future (12). Those younger people who do require treatments are likely to experience extensive dental disease alongside deprivation (12), and participants in my interview study were reluctant to treat many of these Vulnerable Patients under the GDS contract in general dental practices. However, participants also acknowledged that Vulnerable Patients are usually unable to fund their dental treatment privately.

At the same time, the relatively untapped UK market for private cosmetic dentistry has been of interest to at least one major dental corporate body for many years (233) and is predicted to expand in future (28). Thus, it appears that, increasingly, there is a mismatch between the basis on which dentists wish to provide dentistry, which is moving towards private and cosmetic dental treatment, and the needs of the people who are likely to continue to require low-cost treatment for dental diseases. The interview study findings therefore reflect the economic evaluation of the 2006 GDS contract by Whittaker and Birch (23). This showed that changing the GDS contract with the intention of making access to NHS dentistry more equitable for people in greatest need had the unintended consequence of increasing private dentistry uptake in regular attenders, without achieving its primary objective of increasing access for the wider population (23). This concern has been raised previously by Gallagher and Wilson (251), who emphasised the importance of workforce planning to manage this potentially problematic situation.

In combination, these issues suggest that the dominance of the restorative era for UK dentistry, and the professional ethos which has underpinned it, may draw to a close within a generation. The Steele Review (12), and the pilot schemes it generated, sought to overcome the issues of a system which revolved around items of treatment, to meet the needs of current and future populations. However, the incompatibility of the professional ethos of dentistry and the concept of health-promoting dental care does not yet appear to have been satisfactorily resolved through an alternative arrangement.

7.4   Implications for patient care and the organisation of dental services

The findings of my interview study, contextualised by the systematic review findings, dental and healthcare policies and sociological literature discussed above, generate several implications for patient care and the organisation of services within PDC in England.   These implications primarily relate to current circumstances, however, they also have significance for the future development of PDC for a population whose dental health needs are changing.

7.4.1   Dentists' perceptions of their professional roles are diverse

The dominant role of GDPs is to act as Entrepreneurs, operating financially viable businesses and generating an income by providing dental treatment for Appreciative Patients. The dominant role of community dentists is to be Altruistic Carers, providing holistic dental care for Deserving Patients with especially complex conditions, tailored to their particular needs. However, this research suggests that some GDPs and community dentists can be described as Pragmatic Carers, whose intentions do not conform to these dominant typologies and who are often willing to provide Relational Dental Care for Vulnerable Patients.

7.4.2   Current primary dental care arrangements discourage Relational Dental Care

Dentists recognise that some patients are vulnerable as a result of their social circumstances and often require extra time, empathy and emotional support to access dental care or complete dental treatment. I have termed this concept Relational Dental Care. Some primary care dentists do not perceive providing Relational Dental Care for Vulnerable Patients to be part of their professional

role. However, Pragmatic Carers who do try to accommodate Vulnerable

Patients feel that they are prevented from doing so by structural barriers within

PDC in England. The GDS contract is generally perceived, by primary care

dentists, to preclude GDPs from spending time supporting patients. CDS

commissioning decisions appear to focus limited NHS resources towards

specialist dental care for Deserving Patients, sometimes forcing community

dentists to withdraw services used by Vulnerable Patients. In summary, this

thesis highlights that the PDC setting in England currently remains focused

upon providing *dentistry* (that is, the treatment of dental disease), rather than

providing the *dental care* (that is, the holistic improvement of people's dental

health through preventive care as well as treatment) to which successive

government policies aspire (8, 12, 25, 35).

7.4.3 Potential for inequitable access to primary dental care persists

The conflicted situation described above is significant because it impacts upon

equity of access to PDC for Vulnerable Patients, who may not be welcomed in

general dental practices or the CDS as a consequence. Responsibility for these

patients remains ambiguous within PDC, as it is systematically discouraged in

both settings. Consequently, GDPs tend to refer Vulnerable Patients to the

CDS, whilst community dentists tend to reject those referrals.

This issue is all the more important because Vulnerable Patients, as described

by interview participants, include groups such as young children with dental

caries, anxious and socially-marginalised adults and frail, older people. These

groups are known to experience the greatest burden of oral disease within

society in England (242, 243). Thus, the structural barriers which prevent many

dentists from providing Relational Dental Care disproportionately impact upon

people who are already exposed to the greatest risk of poor oral health, by further restricting their access to PDC. This is likely to increase inequalities in oral health across the population, unless action is taken to recognise the value of Relational Dental Care and encourage and facilitate dentists, or other dental care professionals, to deliver it.

7.4.4   Scope for collaborative working within primary dental care is currently limited

GDPs and community dentists still appear to work in two distinctly separate and poorly integrated settings which have contrasting priorities. In addition, some dentists have strong professional networks but value their independent professional status, whilst others work in large organisations but appear to experience professional isolation. This currently appears to be compromising strategic attempts to improve patients' care pathways by coordinating GDPs' and community dentists' work through Managed Clinical Networks. Scope to improve collaboration appears to be undermined primarily by the professional ethos of dentistry in general dental practices, which is based upon the principle of working independently in a commercially viable business context.

7.4.5   Dentists tend to commit to a career pathway which is consistent with their values, shortly after graduating from dental school

A career in general dental practice appears to be many dentists' default plan, although this can be influenced by enthusiastic dental educators and positive experiences with particular patient groups, before, during, or shortly after dentists' undergraduate dental education. This may enhance or affirm dentists' aspirations to become Entrepreneurs or Altruistic Carers, or to undertake specialty training. However, dentists tend not to transfer between general

dental practices and the CDS (or *vice versa*) once their dental career is

underway, although Pragmatic Carers may do so occasionally. Thus, it would

be most appropriate to encourage dentists to follow a career which involves

providing Relational Dental Care for Vulnerable Patients by raising the

awareness of prospective and current dental students and recently qualified

dentists in core training, to this type of work.

7.5   *Contribution to knowledge*

This thesis has explored dentists' perceptions of their professional roles within

PDC, and particularly in relation to referrals, from a sociological perspective

which has not been considered previously. The research was informed by a

systematic review of the literature relating to referrals within PDC in the UK. It

was designed to gain a deeper understanding of the meanings of the everyday

work, with regard to referrals, of primary care dentists presently working in

England, from dentists' own perspectives. Consequently, this thesis offers new

information about how dentists perceive their professional roles, how dentists

and other people influence PDC and how patients' dental care may be

differentially affected by dentists' referral decisions. The key contributions of

this thesis are presented below.

7.5.1   Identifying problems in referral pathways within primary dental care

The systematic review provided an understanding of how and why the referral

process has operated as it has done within PDC in the UK over recent decades.

As shown in the synthetic constructs generated from the systematic review,

published service evaluations and audits which were included in the review

have shown that solutions have been identified and implemented for problems

associated with referrals from GDPs to specialists based in PDC. However, synthesising the literature also highlighted unresolved issues regarding referrals from GDPs to community dentists.

Furthermore, synthesis of this literature suggested that dentists' perceptions of their professional roles within PDC had not been explored and that dentists working in PDC may have been experiencing role conflict and role ambiguity. Some authors conveyed their own assumptions about how referral systems should operate and which patients should be referred; however, very few had sought dentists' own perceptions of their roles in the context of patient referrals. The interview study was, therefore, designed to provide an insight into this unexplored area. Investigation of the broader sociological aspects of referrals in dentistry was also limited in the literature and, consequently, I have sought to develop this aspect in the interview study.

7.5.2 Identifying dentists' own perceptions of their professional roles

By engaging directly with GDPs and community dentists during this research, the interview study has enabled me to provide an insight into their perceptions of their working lives and professional purpose, to an extent which has not been reported previously in the literature. By using qualitative data collection and analysis, I have been able to consider not only *what* dentists do as professionals in PDC, but also to explore the reasons *why* they act as they do.

This thesis indicates that dentists' decisions about making, accepting and declining referrals within PDC in England are partly based upon their values regarding the nature of the professional work, rewards and patients which they consider to be worthwhile. Dentists' perceptions of their professional roles are

influenced by culturally dominant concepts of authentic professional work in PDC, such as Entrepreneurship in the social world of general dental practices, and Altruistic Caring in the social world of the CDS. At the same time, the agency of dentists, and other social actors, including commissioners and some groups of patients, contributes to the maintenance and modification of the structural rules and resources which govern professional work in PDC. These rules and resources include the GDS contract, specialisation and the commissioning of the CDS.

7.5.3 Establishing dentists' influence within primary dental care

This research indicates that dentists have differing levels of agency, or influence, over their professional work and that some dentists experience more frustration, disillusionment and demoralisation about their professional roles, than do others. Dentists whose values conform to dominant professional cultures appear to have greater agency and experience less role conflict than those whose values do not conform to these norms. Entrepreneurs and Altruistic Carers generally have quite clear ideas about the type of work they intend to do, the type of rewards which they value and the patients for whom they wish to provide dental procedures. Thus they experience little ambiguity in their professional roles.

Pragmatic Carers, who seek to offer Relational Dental Care to a broad community of patients through both social worlds, tend to experience more role conflict and less agency than other groups of dentists. In particular, they identify the GDS contract and the current approach to commissioning the CDS as structural barriers.   The presence of these barriers suggests that the empathic, relational aspect of their perceived professional roles has little value in PDC and prevents Pragmatic Carers from spending time providing emotional

support for Vulnerable Patients, in whom they recognise a need for this type of support and for whom they feel a sense of responsibility. This research has shown that, whilst the impact of NHS remuneration systems upon GDPs' decisions about providing dentistry and whether to refer patients is well-documented, the effects of commissioning and specialisation upon community dentists' willingness and ability to accept referrals have not been reported previously.

7.5.4   Utilising sociological theory to analyse the consequences of dentists' perceptions of professional roles

In this thesis, I have utilised three sociological theories to generate knowledge about the people who engage with PDC, from a perspective which is novel in dental research. Strauss's SW/AT facilitated the visual mapping of the connections, and disconnections, between dentists and other social actors in different social worlds within the PDC arena. The application of Giddens's Structuration Theory as a research paradigm is also novel within dental research and enabled me to offer a critique of the social actors, rules and resources which comprise PDC. By approaching authenticity in PDC from the perspective of a Feminist Sociology of Work, I proposed that some dentists' professional roles are perceived to be more authentic, and therefore more dominant, than others' roles. Thus, whilst some dentists intend to offer patients the empathy, time and support which constitute Relational Dental Care, such efforts are discouraged and rendered invisible within PDC, as a result of cultural associations with the female-oriented, private, domestic sphere.

7.5.5   Increasing understanding about how dentists' role perceptions influence their decisions about patient referrals

This research process has enabled me to gain a deeper understanding about the non-clinical factors which dentists consider in relation to referrals for dental patients. Interpretation of the findings indicates that dentists' decisions about referrals within PDC are based on a series of value judgements pertaining to their professional roles. When deciding whether to make, accept or decline patient referrals from general dental practices to the CDS, dentists consider:

- The nature of work which they consider worthwhile,

- The rewards which they consider worthwhile, and

- The patients whom they consider worthwhile.

Dentists' value judgements may be endorsed or suppressed by structural levers and dominant cultural expectations, regardless of whether their judgements benefit patients.

7.6   Strengths and limitations of the systematic review

7.6.1   Strengths

The systematic review incorporated diverse types of literature and adopted a critical interpretive approach to synthesis which had not been applied in dental research previously. This approach enabled me to collate and synthesise literature from a diverse range of sources, in order to identify and depict several different referral pathways operating in disparate ways within PDC.

In addition, using CIS enabled me to critique authors' problematisation of the concept of referrals within these pathways. For example, questioning authors' frequent presentation of referrals as being inappropriate, often by community

dentists and authors commenting on specialist services in secondary care, led

me to notice that both groups were sensitive to pressures upon services with

constrained resources. In contracts, specialists in practices did not experience

constraint and perceived referrals as a business opportunity. Taking a critical

approach to narrative discussions of results also highlighted that authors who

were secondary care providers tended to dismiss patients' preferences for

accessing specialist services via PDC settings. Conversely, authors who were

specialists based in dental practices universally emphasised the benefits of

delivering specialist services in PDC, particularly when they were remunerated

in a way which incentivised accepting more referrals.

7.6.2   Limitations

7.6.2.1 Systematic review methodology

Synthesising non-quantitative research data is a relatively novel concept and its

merits, particularly for deconstructing complex social issues, continue to be

debated by qualitative methodologists (58, 252, 253). Some authors argue for a

descriptive synthesis of themes from multiple qualitative studies (59). Other

authors have taken the concept further, advocating for the interpretation across

qualitative studies to synthesise broader higher order constructs (58, 254) or the

incorporation of other forms of data into the synthesis by using CIS to critique

the way the review question is framed by authors (61, 63).

7.6.2.2 Data collection method

The broad topic of referrals within PDC, as a whole, has received limited

attention in the literature, although some pathways, relating to oral surgery and

orthodontics have been investigated more extensively than most. Consequently,

the published evidence base was small and tended to be produced by authors

with a particular interest in specific areas, such as senior community dentists and specialists in secondary care. This review inevitably represented the perspectives of community dentists and specialists, more than those of GDPs. This discrepancy highlighted the need for further research, as conducted in the interview study.

In addition, there are inherent challenges with searching for diverse literature sources, especially those which do not involve quantitative research (59, 60). The titles and keywords applied to such articles are less consistent and predictable than the terms used as keywords in quantitative studies (61), and many terms which could be useful keywords may not be catalogued as such in mainstream medical databases (255). Whilst I attempted to identify all of the relevant articles, it is considered reasonable, within Thematic Synthesis and CIS, to sample sources in order to identify all relevant themes, and it is not necessary to identify every article pertaining to the topic in order to achieve this (59, 61).

Finally, there remains considerable debate between qualitative methodologists about whether, and how, to define quality in qualitative research, which, by definition, is methodologically diverse and does not conform to the rigid hierarchy associated with quantitative research methods (59, 253). Whilst a number of approaches to quality appraisal exist, including numerous checklists, few have been assessed for validity and, conceptually, quality appraisal remains divisive (252). Consequently, it is generally considered preferable to assess the relevance of the data to the specific review question, rather than assessing the quality of the data against a generic checklist (61, 253).

7.6.2.3 Data synthesis method

Much of the included literature approached the topic of referrals from a quantitative perspective, consistent with mainstream dental research and service evaluation, and there was limited qualitative research evidence. However, by using CIS, I was able to utilise the entire content of each included article in a similar manner to an item of qualitative data, which increased the relevance of many included articles. However, as mentioned in section 2.3.2.3, whether a systematic review incorporates quantitative or qualitative data, the findings of the synthesis are dependent upon authors having reported their primary data in an unbiased manner (66) as well as reviewers having interpreted that data appropriately. In addition, authors of qualitative research may be constrained in their use of direct quotes from participants by the need to maintain participants' anonymity, as documented in relation to my own interview study, in section 7.7.2.2. Techniques have been developed to detect the possibility of reporting bias in studies included in aggregative systematic reviews (66). In the context of configurative systematic reviewing, the use of CIS allowed me to consider the possibility of reporting bias in authors' interpretations, drawing attention to this possibility in the narrative when presenting the synthetic constructs, as described in section 7.6.1, above.

A further limitation of data synthesis in this systematic review is that I undertook some of the synthesis as a single reviewer, rather than being one of several reviewers looking at articles in parallel. This approach has a greater potential for subjectivity and over-interpretation, when compared with a multiple reviewer approach. The potential for subjective selection of articles was minimised by collaborating with three supervisors (MN, DM and ES) to develop the inclusion and exclusion criteria and then working with a supervisor as an additional

reviewer (either MN or DM) at the stage of screening abstracts. The potential

for over-interpretation at the synthesis stage was reduced by conducting a

series of meetings with supervisors (MN, DM and ES). During these meetings,

the first and second order constructs were discussed, and the development of

synthetic constructs and the synthesising arguments were critiqued and revised,

taking account of alternative interpretations, in an iterative manner.

7.7   Strengths and limitations of the interview study

7.7.1   Strengths

7.7.1.1 Meeting quality guidelines for qualitative research

Following the quality guidelines of Elliott *et al.* (191), listed in Figure 4, I have

presented the research context for this interview study in Chapters 1 to 3 and

explained and justified the suitability of my methods in Chapter 4. I have

demonstrated respect for participants in my account of the conduct of the data

collection process and by conveying participants' words, whilst preserving their

anonymity, in my presentation of the findings in Chapter 5. I have provided an

extensive discussion of the findings in Chapters 6 and 7 and I elaborated the

contribution this research makes to our knowledge of dentists' perceptions of

their professional roles in section 7.6 of this chapter. With specific regard to

quality in the documentation of qualitative research, I have presented my

personal context in Chapter 1, described the participants and used quoted

excerpts to demonstrate the grounding of the findings in original data in Chapter

5. I have presented my credibility checks in section 4.7.6 of Chapter 4. I have

attempted to provide a coherent narrative describing the theoretical perspective

and practice processes of this research, though a final assessment of its

coherence and resonance can only be made by the reader.

7.7.1.2 Researcher role and reflexivity

In qualitative research, it is recognised that the information participants choose to share, and researchers' interpretations of that data, is influenced by both participants and researchers (139). Having conducted this interview study as an 'insider learner' (143: p.11), I have been able to use my knowledge of the research setting to contextualise and interpret the data. As recommended by Barbour (193), and following the reporting guidelines of Elliott *et al.* (191), I have explained my own connection and 'mutual knowledge' (145: p.251) of these participants and this particular research setting, in order for readers to take these contextual factors into account in their own reading of this thesis.

7.7.1.3 Transferability of analysis

In addition to sharing my perspective, I have used extensive quotes from diverse participants to support the thematic analysis by situating themes in participants' own contexts. In order to produce a robust analysis of the data, I worked through the process with an experienced supervisor (JR), in the role of 'additional analytic "auditor"' (191: p.222).

The engagement of diverse participants is consistent with my aim of developing 'a *general* understanding of a phenomenon', which is potentially transferable beyond the participants themselves (191: p.223, authors' emphasis). I have sought to produce a coherent account of the findings, and my interpretation of those findings, through a combination of narrative explanation and mapping of typologies of participants as well as their social worlds. Therefore, aspects of the findings may be transferable to other, similar settings, for example, in the devolved nations of the UK. The provision of extensive contextual information

in this thesis is intended to enable readers to assess the transferability of its

findings to their own setting.

7.7.1.4 *Sociological perspective on primary dental care*

By taking a sociological perspective, this thesis offers additional understanding

of dentists' motives, intentions and values in relation to their professional roles,

especially for community dentists. Their role has not been considered in depth

since the early 1990s, when Mander (100) explored their responses to a policy

which required community dentists to discharge child patients to GDPs. Since

then, considerable changes have taken place within the CDS, and this interview

study provides an insight into some of the consequences of those

developments for community dentists, and for patients.

7.7.2   Limitations

7.7.2.1 *Recruitment*

The nature of the recruitment process for this study was necessarily indirect, in

order to facilitate nationwide participation and also to avoid the possible

perception of pressure to take part in research being conducted by a dentist.

Although recruitment to this qualitative study was not intended to be statistically

representative of the whole profession, it was designed to encourage dentists

with diverse career experiences to participate (196). The iterative theoretical

sampling process achieved this relatively effectively; however, it was difficult to

recruit recent graduates and full-time associates working in corporate practices.

Further phases of sampling slightly improved Foundation Dentist recruitment

but had no additional impact upon the recruitment of dentists from corporate

practices. Drawing upon data from participants, I noticed parallels with their

reported experiences of difficulty when trying to engage with dentists who were new to an area and those working for dental corporates.

Therefore, a particular challenge in this study was the recruitment of dentists working as associates in corporate dental practices. Four of the participants were working in corporate dental practices and one other participant had past experience of working as an associate for a dental corporate body. Of the four participants, two were part-time associates who had strong professional links which were independent of the dental corporate body. Two others were completing salaried training posts and were therefore connected to external training groups, as well as being protected from the pressures, described by some participants, in relation to the GDS contract and corporate-controlled private charges. Consideration needs to be given to the implications of this recruitment outcome, both in terms of recognising the limitations of the transferability of the findings of this study and in terms of considering how to engage this professional group in future research projects.

In terms of the findings of this study, it is possible that some associates working in corporate dental practices may have perceptions of their professional roles which might not fit with the typologies and interpretations which have been developed from the findings. This may limit the transferability of the findings to the corporate dental sector of general dental practice. Particular aspects where variation might be more likely, based upon the existing findings, could include themes relating to Clinical Autonomy, as this issue was perceived by participants to be more problematic in the corporate environment. Conversely, the findings also suggest that Disconnection and No Man's Land might be even stronger themes amongst associates in corporate dental practices, as some

participants reported that such dentists seemed to be relatively isolated from others in the profession, whilst apparently referring more patients to the CDS.

Several possible explanations for the low engagement of associates working in corporate dental practices can be proposed. Further research is necessary to clarify whether these proposals are relevant, as this may be an issue which affects the engagement of this group in research more generally. Firstly, associates from dental corporates may not be engaging in large numbers with the conventional professional networks through which I invited participation. It is possible that recruiting via more informal, online professional networks such as GDPUK (256), or Dental Circle (257), might overcome this issue. However, given the generational transition towards online social media, it is also feasible that these might simply be new and parallel networks used by younger or more digitally aware independent dentists.

Secondly, corporate directors and managers may have elected not to cascade the invitations to their staff, so their associates may not have received the invitations which were sent as an additional iteration of theoretical sampling. The corporate directors and managers were contacted via mutual professional contacts, with whom they had already established a rapport. However, alternative ways to engage dental corporate bodies in research, and obtain feedback about their engagement, should be considered in future.

Thirdly, even if associates from dental corporates received invitations to take part, they may have felt reluctant to respond. This could possibly stem from a fear of consequences from management, colleagues, legislative bodies or possibly even patients and members of the public. Data collected from some participants indicated that associates can feel under pressure from corporate or

practice management, to achieve UDA targets, generate income or accept other

constraints on their autonomy, whilst their performance is closely monitored.

The Centre for Workforce Intelligence (258) indicates that dentists who have

come from abroad to work in the UK accept lower incomes than dentists from

the UK, suggesting that they may be vulnerable to pressure from employers.

Some associates may have been reluctant to be seen to show interest in the

study (by opening the email or looking at the flyer or webpage on a computer

screen in the practice, for example). Others may have been wary of sharing

their experiences if they had concerns about their working environment and

working practices, especially given my ethical responsibility to follow up

unreported unprofessional issues, as stated in the participant information.

Furthermore, it should be noted that this research began immediately prior to

the announcement of the EU referendum in the UK. The timing of this

announcement meant that much of the data collection took place during a

referendum campaign in which people's rights to work in the UK were a

particularly contentious issue. Consequently, at the time of the study, some

dentists may have felt especially vulnerable about discussing their professional

roles within PDC in the UK.

7.7.2.2 Preserving anonymity

Regarding the reporting guidelines of Elliott *et al.* (191), I have provided a

general overview of the characteristics of the participants, however I have

limited this information in order to protect their anonymity. In addition, whilst I

used the entire original data set throughout the analysis process, for the

purposes of illustrating the findings I have selected quotations which preserve

participants' anonymity and redacted some details which might identify

individuals. This has meant that some particularly informative sections of data

have not been used, or have been significantly redacted, which may have

reduced their apparent impact for readers. I have done so because of the

potential for identifying participants by cross-referencing data from this study

with the extensive information about registered healthcare professionals which

is openly available through a wide range of electronic sources, such as formal

registers, workplace websites and social media.

7.7.2.3 Analytical process

The nature of qualitative research, particularly that which is based upon idealist

assumptions, recognises that the process and outcomes of research are

inherently subjective and that researchers inevitably influence many aspects of

their research, from question-setting through to data collection and analysis

(139). Consequently, I recognise that my interpretation of the findings is

contextualised by my own experiences of working in various different jobs in

several PDC settings across England. However, I have sought to acknowledge

this through reflexivity, in order that readers can take this into account when

they consider the relevance of the research question, the findings and my

interpretations (139, 140, 194).   Participants' responses to the research

summary, and informal feedback from dentists who attended a seminar at which

this research was presented, have reported that they recognise their own

experiences in the second order constructs which are presented in the findings.

This is consistent with the approach to research using the ARS, as described by

Blaikie (143) and presented in section 3.4.2.1 in this thesis.

7.8   Recommendations

The nature of the ARS which underpins this research means that this thesis

generates understanding of meanings (143). Consequently, the

recommendations resulting from this research are, necessarily, tentative. The

focus of my recommendations is to draw attention to the assumptions and

consequences of dentists' perceptions of their professional roles in PDC,

alongside the structural barriers which they currently experience, and the

context of the patients who require dental care.

These recommendations identify aspects of PDC and dental education around

which policymakers, healthcare leaders and dental educators might wish to

consider making changes or conducting research. The suggestions are

proposed on the basis that the findings of this research, when considered in

relation to the policies and literature introduced in this chapter, indicate that

making changes to reorient healthcare systems and professional culture may be

necessary to improve Vulnerable Patients' access to PDC. This could reduce

inequities in access to PDC, and inequalities in oral health status, for people

whose risk of experiencing poor oral health is high.

7.8.1   Recommendations for policy and practice

7.8.1.1 Short-term

It is clear that, for Vulnerable Patients in No Man's Land, the current system can

reduce their access to PDC, even though generalist community dentists and

some GDPs show some willingness to provide this care. It is also evident that

the existing professional ethos and business model for general dental practice

provide cultural and structural barriers, whilst in the CDS, the barriers relate to

recent structural changes in commissioning. Consequently, in the short-term,

one approach to increasing access to PDC for Vulnerable Patients would be to

reinstate and resource the CDS safety-net function, possibly encompassing the

salaried PDS system, in order to overcome the structural barrier of CDS commissioning.

Furthermore, it appears that patients experience a more efficient care pathway when they are referred to a CDS which is commissioned to provide a broad range of services, including inhalation and IV sedation and, in particular, dental treatment under GA. This avoids the delays and confusion which, participants indicated, can occur when a second referral to another provider is required in order to complete a patient's treatment. Therefore, to improve patient care pathways, commissioners may wish to consider commissioning sedation and GA services from the same provider as general and specialist CDS services, when procuring such services in future.

In addition, modifying eligibility criteria to include social circumstances would acknowledge that these can negatively affect oral health and uptake of preventive and treatment services, as may more specific impairments. Creating flexibility around eligibility criteria may prevent Vulnerable Patients whose dentists are not willing to provide their dental care, from losing all access to PDC due to a referral being rejected as inappropriate, or a referral not being made, in the expectation of rejection. Overall, this would enable Pragmatic Carers to legitimately provide dental care for Vulnerable Patients, under the direct management of NHS organisations and without the problematic financial levers created by the GDS contract.

7.8.1.2 Medium-term

It appears that dentists' professional culture is heavily ingrained towards providing items of treatment to individual patients via independent businesses and that this culture goes deeper than the GDS contract which contributes

towards sustaining it. However, designing the new GDS contract to facilitate GDPs who are Pragmatic Carers to contribute to dental care, by building in financial incentives for preventive dental care, and treatment (where it is necessary) for Vulnerable Patients, may promote their intrinsic motivation. This could help to reduce the 'No Man's Land' gap by facilitating keen GDPs to make additional efforts for Vulnerable Patients, thus enabling some patients to continue to receive care in general dental practices.

These financial levers would need to include a 'risk adjustment' (259: p.5) element alongside a capitation fee system, rather than a simple return to a fee-for-service arrangement. However, for this to be effective, the risk adjustment 'must not be made on the basis of characteristics that the dentist can manipulate himself/herself' (259: p.5). Equally, the BDA Case Mix tool (34) is not designed to identify social risk factors, as distinct from complexity, and would not appear to be suitable for making adjustments for Vulnerable Patients.

It should be recognised that GDPs appear to have a relatively limited network of contacts to support them if patients' needs extend beyond their scope. MCNs may assist with this, and may even be more successful if they are voluntary (244). As with eligibility criteria, it may be preferable to acknowledge social circumstances in a similar manner to individual impairments, by designing MCNs for Special Care and Paediatric Dentistry to include, at least at Levels 1 and 2, patients who are vulnerable for social reasons, rather than excluding them.

7.8.1.3 Long-term

Epidemiological trends in the oral health of England's population indicate that PDC may need to transition towards a post-restorative era during the next

generation. This era is likely to require *dental care* (rather than *dentistry*), that is, facilitating preventive care for all, in addition to providing affordable, routine dental treatment, primarily for Vulnerable Patients (6, 12). At the same time, it appears likely that the market for cosmetic dentistry in the private sector for Appreciative Patients will continue (28). Policymakers will need to take into account these significant changes when planning the future delivery of dental education and organisation of PDC.

The dental care needs of Vulnerable Patients would appear to be more closely aligned with the professional roles described by generalist community dentists who participated in this study, than they are to the priorities of some highly independent GDPs. These findings suggest that, in the long-term, it may be appropriate for policymakers to consider how to recruit, educate, train and manage a directly-employed NHS dental workforce. This could involve generalist dentists whose values are consistent with delivering Relational Dental Care to meet the changing needs of the population, supported by an organisational culture which promotes its delivery through a salaried service structure, rather than the current business structure of general dental practices (6). This may help to overcome the challenges of contracting independent businesses to provide patients with the dental care (rather than dentistry) for which policy makers continue to aim, in a post-restorative era.

7.8.2   Recommendations for policy and dental education

7.8.2.1 Short-term

This thesis has demonstrated that dentists' preferences to work with Vulnerable, Deserving or Appreciative Patients are values-based and influenced by personal experiences and clinical educators. These decisions may be made

before dentists apply to dental school, during their dental education or in the early years of their postgraduate training. In a recent study of UK dental students' career aspirations, over 60% of responding students acknowledged that they were unaware of all their career options (260), yet most anticipated working in general dental practices. This suggests that becoming an associate remains dental students' default career choice, as it was for many interview participants.

Consequently, efforts to engage a dental workforce which is keen to undertake Relational Dental Care will need to be targeted early in dentists' career development. In the short-term, such efforts could include facilitating dental students and qualified trainees to participate in dental care for Vulnerable Patients in community-based clinical settings, through a series of visits or a dedicated placement. These opportunities already exist in some UK dental schools (261-263), and some interview participants reported having been involved in a community placement as dental students (or educators), which they considered to have been influential in their career choice.

With regard to selecting dental students, consolidating the use of the more effective methods of values-based recruitment (236) across all dental schools in England may be an effective step towards promoting caring values in a greater proportion of the future workforce. In addition, given that some participating dentists had an intention to work with vulnerable people before they embarked upon a dental career, it may be beneficial to identify ways to promote a career in dental care to people who already have an interest in working with vulnerable people (235).

7.8.2.2 Medium-term

The literature relating to values-based recruitment indicates that students' values can be modified by their training environment (236). Consequently, it may be beneficial to pay some attention to the ethos of dental schools and dental educators. Focusing the undergraduate dental curriculum towards Relational Dental Care, by making the relational aspects of dental care as explicit as the technical aspects of dentistry, may help to modify the dental school environment. Considering values-based recruitment of dental educators may also help to ensure that dental students experience a positive approach to working with Vulnerable Patients.

Furthermore, working to change public perceptions of cultural norms in PDC might enable some prospective dental students to consider a dental career in a different light. Changes to public perceptions may result from changes to the approach of dental professionals themselves as encouraged by the recommendations in section 7.8.1. In addition, raising awareness of the work of the CDS might highlight its career opportunities for prospective students, who may not come into contact with community dentists as patients, as well as raising its profile for the Vulnerable Patients who may need to access care from the CDS.

7.8.2.3 Long-term

The long-term implications for dental education and training overlap with the recommendations for policy and practice which were described in section 7.8.1.3, above.

7.8.3   Recommendations for future research

7.8.3.1 Dentists' readiness to participate in research

This study leads to further research questions about whether some dentists may feel unable to take part in research as a result of their employment or other circumstances and, if so, why that might be the case and whether those dentists could be empowered and engaged to take part in research in the future. This may require a participant observation approach (264) in order to better understand the context, behaviours and interactions which occur in corporate dental practices. This type of research may be more effectively conducted by a dentist working as a locum associate, who could research the issue as an 'insider' (143: p.11), by meeting the profile of an associate in a corporate dental practice, thus having credibility with other associates. However, there remains some potential for the presence of a dentist-researcher to influence the behaviour of colleagues. The influence of researchers and observers upon participants is known as the '"Hawthorne effect"' (264: p.182) in reference to Roethlisberger and Dickson's (265) study of industrial workplace conditions at an electric plant of the same name, which identified and reported on this effect.

7.8.3.2 Perceptions and expectations of dentists working in dental corporate practices

It would be particularly helpful to conduct further research into the perceptions and expectations of dentists who work in corporate dental practices, given that at least 22% of GDPs work in the UK corporate sector, delivering a substantial amount of NHS- and privately-funded dentistry (30). In addition, subject to developing and testing suitable research methods, as outlined above, it would be particularly relevant to establish the nature and extent of corporate dentists' professional networks (244), in order to improve collaboration directly between

dentists within PDC, rather than being reliant upon connections which only exist at a clinical leadership or management level.

7.8.3.3 Generational trends in motivational beliefs and role perceptions

In this study, several older, male GDPs particularly valued technical dental care, independence and running a small business, whereas younger male and female participants were more community-focused and related to the idea of working in teams. However, Puryer and Patel (260) recently suggested that very few dental students from one UK dental school intended to work in the CDS during their career, whilst most of those who plan to become associates hope to go into partnership in the longer term. Gallagher *et al.* (266) previously established that income remained a high priority for final year students at another UK dental school and that very few students intended to specialise in Special Care Dentistry. Whilst my study was not designed to assess dentists' working preferences at scale or longitudinally, further research designed to investigate the extent to which various motivational beliefs and role perceptions are held by younger cohorts of dentists could inform the development of appropriate incentives to encourage the next generation of dentists to work more effectively with Vulnerable Patients. Gallagher and Wilson have already highlighted the need for workforce planning to ensure that the dental workforce of the future 'is patient-centred and promotes oral health' (251: p.198).

7.8.3.4 Comparisons between England and the devolved nations of the UK

Whilst PDC in the devolved nations also involves a community-based dental care service working alongside general dental practices (26, 267, 268), the significant differences between PDC arrangements merit further investigation.

For example, developments in the Scottish salaried services since a review in 2006 have led to the creation of a Public Dental Service, in which socially excluded people, including people who need domiciliary dental care, are specified as priority groups, alongside children and adults with additional needs (38). Comparison with these arrangements might demonstrate whether they could offer a solution to the gap which is currently present in the English system.

7.9   Conclusions

Few researchers have previously employed sociological theory to analyse PDC. This study aimed to explore dentists' perceptions of their professional roles in the context of referral decisions within PDC in England. It adds to our understanding of why dentists make, accept or decline referrals, how this can impact upon patient care and which patients are most likely to be negatively affected by dentists' referral decisions. The findings indicate that dentists' decisions are influenced by their values and by the structural rules and resources which surround PDC. These influential factors are based upon cultural values associated with paid work and the contrasting priorities of the business and service models upon which general dental practices and CDSs, respectively, are founded.

In relation to my research objectives, this study indicates that some GDPs perceive their professional role to be business-oriented, whilst others seek to support their local community. Generalist community dentists also have a pragmatic, community-oriented professional identity, whereas specialist community dentists perceive a professional commitment to supporting patients with complex needs. There is a gap between the boundaries of the first and last of these perceived roles, which pragmatic GDPs and community dentists feel

unable to fill, despite their intentions to do so. This situation contributes to problems with referral processes in PDC.

In summary, some primary care dentists do not perceive providing dental care for Vulnerable Patients to be part of their professional role. This influences their referral decisions, and can obstruct access to PDC for the people most likely to experience the burden of oral disease. This interpretation leads to the conclusion that dominant perceptions of dentists' professional roles do not recognise the value of providing time and emotional support for Vulnerable Patients during dental visits, despite dentists' awareness that such patients would benefit from this type of Relational Dental Care. Thus, dentists' do not share common goals which would support the current policy for creating collaborative networks. This study suggests that failure to resolve structural barriers or to consider dentists' values will hinder attempts to reduce inequalities in Vulnerable Patients' access to PDC in England.

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Appendices

Appendix 1: MEDLINE and CINAHL search strategy

Line number	Search terms
S1	(MH "Dentistry+")
S2	TX dentistry
S3	TX dentist
S4	TX dental
S5	S1 OR S2 OR S3 OR S4
S6	(MH "Referral and Consultation+")
S7	TX referral
S8	TX referrals
S9	TX referring
S10	TX "refer"
S11	S6 OR S7 OR S8 OR S9 OR S10
S12	S5 AND S11
S13	TI "United States" OR USA OR "New York" OR America* OR Canad* OR Medicaid OR Medicare
S14	TI Michigan OR California OR Minnesota OR "North Carolina" OR Ontario OR "New York City" OR Texas OR "New Jersey" OR Iowa OR Washington OR Boston OR Virginia OR Alberta OR Chicago OR Florida
S15	TI Australia* OR "New Zealand" OR Victoria OR "Western Australia" OR "New South Wales" OR Queensland
S16	TI Brazil OR Nigeria OR India OR Japan OR China OR "Hong Kong" OR Thailand OR "South Africa" OR Iran OR Israel OR Kenya OR Tanzania OR Malaysia OR Mexico OR Jordan OR Singapore
S17	TI Sweden OR Netherlands OR Norway OR Finland OR Germany OR Denmark OR Spain OR France OR Italy OR Portugal OR Belgium OR Flanders OR Russia OR Poland OR Hungary OR Greece
S18	S13 OR S14 OR S15 OR S16 OR S17
S19	S12 NOT S18

Appendix 2: Embase search strategy

Line number	Search terms
1	Dentist.mp or exp Dentists/
2	Dentistry.mp or exp Dentistry/
3	Dental.mp
4	1 or 2 or 3
5	referral.mp or exp "Referral and Consultation"/
6	referring.mp
7	refer.mp
8	referrals.mp
9	5 or 6 or 7 or 8
10	4 and 9
11	(Sweden or Netherlands or Norway or Finland or Germany or Denmark or Spain or France or Italy or Portugal or Belgium or Flanders or Russia or Poland or Hungary or Greece).m_titl.
12	(Brazil or Nigeria or India or Japan or China or "Hong Kong" or Thailand or "South Africa" or Iran or Israel or Kenya or Tanzania or Malaysia or Mexico or Jordan or Singapore).m_titl.
13	(Australia* or "New Zealand" or Victoria or "Western Australia" or "New South Wales" or Queensland).m_titl.
14	(Michigan or California or Minnesota or "North Carolina" or Ontario or "New York City" or Texas or "New Jersey" or Iowa or Washington or Boston or Virginia or Alberta or Chicago or Florida).m_titl.
15	("United States" or USA or "New York" or America* or Canad* or Medicaid or Medicare).m_titl.
16	11 or 12 or 13 or 14 or 15
17	10 not 16

Appendix 3: Grey literature search strategy

Source	Topic	Sub-topics searched:
Cochrane Library Database of Systematic Reviews	Public Health	Health related systems
		Other public health
	Dentistry & Oral Health	Dentistry practice & systems
	Effective practice/health systems	(All four sub-topics checked)

Source	Search terms used:
EThOS	'dentistry' OR 'dentist' OR 'dental' [then manual search for concept of 'referral']
OpenGrey	(dentist* OR dental) AND (referral* OR referring OR "refer")

Appendix 4: Screening criteria

Inclusion criteria

- Referral originates from a dentist in a UK primary dental care setting ('source').

AND

- Care is provided by a dentist in a UK primary dental care setting ('destination').

Exclusion criteria

- None of the referrals originate from a dentist in a primary dental care setting.

OR

- None of the care is provided by a dentist in a primary dental care setting.

Notes and definitions of terms

- Both inclusion criteria must be met for an article to progress through screening process.
- Clinician must be a dentist and may be a specialist or a generalist.
- Health care organisation ('setting') may be:
    - Any primary dental care provider organisation (community dental service or general dental practice), including when hosted by a secondary care provider organisation e.g. using theatre facilities in a hospital;
    - A secondary dental care provider organisation providing specialist services, only if the patient is cared for in a primary dental care setting. This would include an outreach or remote (teledentistry) service involving a specialist but with the intended outcome of supporting a primary care dentist to continue to manage the patient in primary care. It would not include a service with the intended outcome of sifting inappropriate referrals out more efficiently, before sending appropriate patients on for specialist care in a hospital setting.
- Care provided by specialist dentists in any type of hospital setting (i.e. secondary care provider organisation) would not be accepted at the screening stage. Summarised in table:

		Clinician	
		Generalist dentist	Specialist dentist
Health care organisation ('setting')	Primary dental care provider	Accept at screening stage	Accept at screening stage
	Secondary dental care provider	Accept at screening stage	Do not accept at screening stage

- The primary care setting also includes community settings such as nursing homes, schools, people's own homes but excludes occupational settings such as services for members of the armed forces.
- If the source or destination setting is unclear, e.g. 'intermediate services', or it is difficult to tell whether the provider is working in a primary care setting, or if it is a primary care provider, hosted by a secondary care provider, then the article should progress through to the next stage of the screening process.
- Care is defined as assessment, diagnosis, prevention or treatment for oral disease, accommodating for barriers to receipt of care where required (e.g. treatment under sedation, general anaesthesia or after anxiety management if this is provided in the primary dental care setting).
- Referral must be a significant theme within the article.
- Articles simply reporting referral instructions, clinical guidelines or policies will not be included.

Aspects which are <u>not</u> relevant to the screening process

- The perspective (patient/carer/parent/ dentist/organisation) will not influence the screening process.
- The nature of the article (research or non-research) and the research methods used will not influence the screening process.

Appendix 5: PRISMA flow diagram of database search process
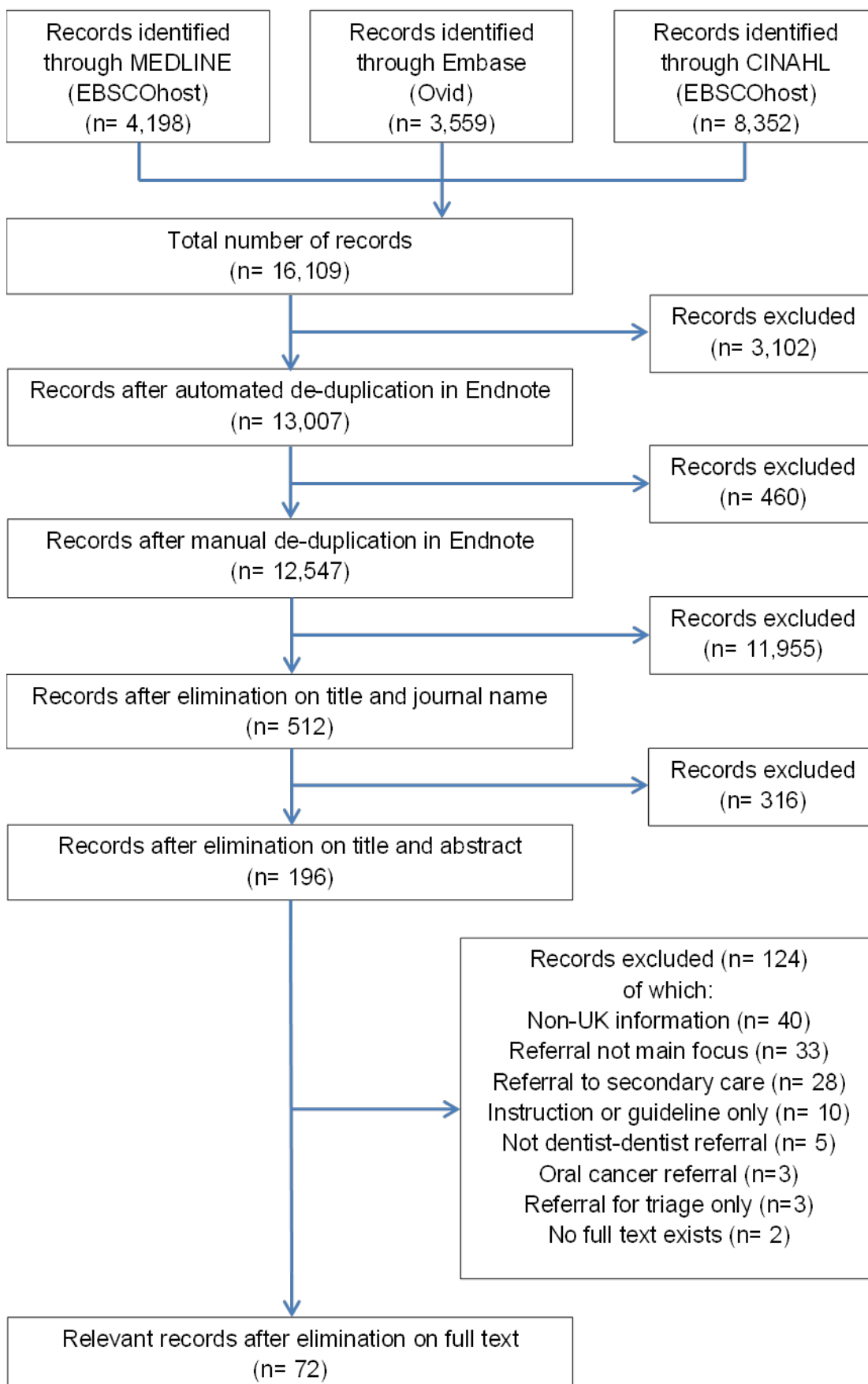
Appendix 6: PRISMA flow diagram of grey literature search process
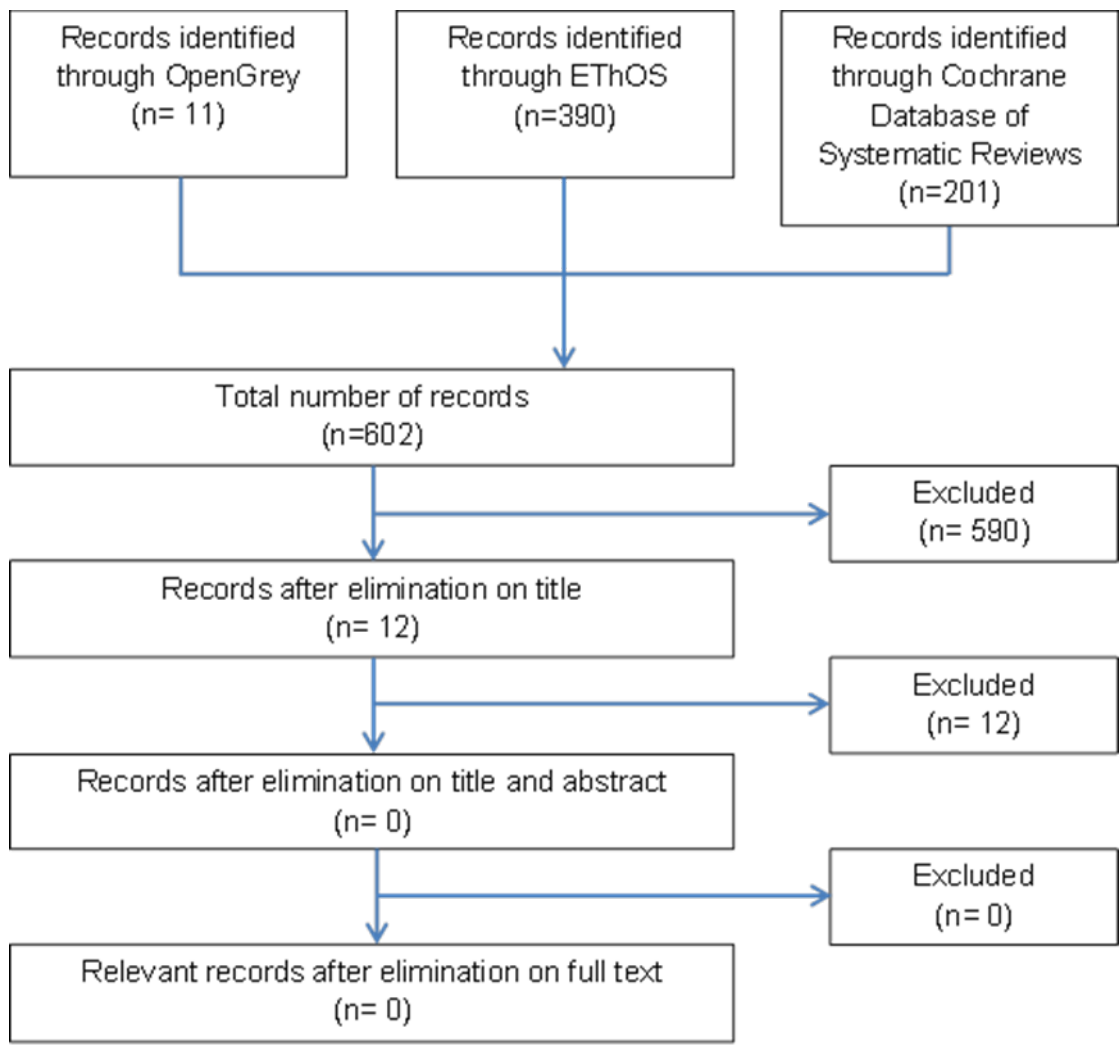
Appendix 7: List of included articles

The referral pathway from GDPs to Community Dentists

Authors (Reference)	Country	Year	Title
Aspinall, A. & Blinkhorn, F.A. (90)	England	2007	The appropriateness of referrals for exodontia in children under general anaesthetic
Baker, R.A., Anthony, L. & Sanders, H. (89)	England	2006	An audit of the quality of a referral document, designed in accordance with Scottish Intercollegiate Guidelines Network, for paediatric exodontia under general anaesthesia
Clayton, M. & Mackie, I.C. (84)	England	2003	The development of referral guidelines for dentists referring children for extractions under general anaesthesia
Clewett, J.A. & Treasure, E.T. (85)	Wales	2004	A retrospective study of dental general anaesthesia carried out in children living in North Wales 1995-1998
Cooke, L., Davenport, E.S. & Anderson, P. (78)	England	1998	Changes in the referral pattern of child patients from the GDS to the CDS following the introduction of capitation in October 1990. General Dental Services. Community Dental Services
Davies, B.J.B. & Macfarlane, F. (21)	Not specified	2010	Clinical decision making by dentists working in the NHS General Dental Services since April 2006
Fenwick, J.E., Batchelor, P.A. & Samarawickrama, D.Y. (95)	England	1998	Reasons for referral of very elderly patients to the community dental service in rural England and the implications for developing oral health care services
Goodwin, M., Coulthard, P., Pretty, I.A., Bridgman, C., Gough, L. & Sharif, M.O. (93)	England	2012	Estimating the need for dental sedation. 4. Using IOSN as a referral tool
Hally, J., Clarkson, J.E. & Newton, J.P. (68)	Scotland	2003	Continuing dental care for Highlands elderly: current practice and attitudes of dental practitioners and home supervisors
Harris, R.V., Pender, S.M., Merry, A. & Leo, A. (69)	England	2008	Unravelling referral paths relating to the dental care of children: a study in Liverpool
Landes, D.P. & Bradnock, G. (75)	England	1996	Demand for dental extractions performed under general anaesthesia for children by Leicestershire Community Dental Service
Landes, D.P. & Clayton-Smith, A.J. (76)	England	1996	The role of pre-general anaesthetic assessment for patients referred by general dental practitioners to the Community Dental Service

Author (reference)	Country	Year	Title
MacCormac, C. & Kinirons, M. (79)	Northern Ireland	1998	Reasons for referral of children to a general anaesthetic service in Northern Ireland
Macpherson, L.M.D., Pine, C.M., Tochel, C., Burnside, G., Hosey, M.T. & Adair, P. (88)	Scotland	2005	Factors influencing referral of children for dental extractions under general and local anaesthesia
Palmer, J.D. (71)	Not specified	1993	GDS and CDS--are they on the same side?
Podesta, J.R. & Watt, R.G. (77)	England	1996	A quality assurance review of the patient referral process and user satisfaction of outpatient general anaesthesia services for dental treatment
Porritt, J., Baker, S.R. & Marshman, Z. (94)	England	2012	A service evaluation of patient pathways and care experiences of dentally anxious adult patients
Richards, W., Razzaq, K. & Higgs, G. (92)	Wales	2009	An audit of dental general anaesthetic referral from a general dental practice in South Wales
Stevens, A., Crealey, G.E. & Murray, A. M. (96)	Northern Ireland	2008	Provision of domiciliary dental care in North and West Belfast
Thomas, D., Royle, I., John, J.H. & Bainton, P. (86)	England	2004	Do referrals from primary dental care for treatment using general anaesthesia comply with General Dental Council guidelines?
Threlfall, A.G., King, D., Milsom, K.M., Blinkhorn, A.S. & Tickle, M. (91)	England	2007	General dental practitioner's views on dental general anaesthesia services
Tochel, C., Hosey, M.T., Macpherson, L. & Pine, C. (87)	Scotland	2004	Assessment of children prior to dental extractions under general anaesthesia in Scotland
Tyrer, G.L. (80)	England	1999	Referrals for dental general anaesthetics – how many really need GA?
Tyrer, G. (81)	Not specified	2000	Dental anaesthetic referrals
Webb, T. (82)	Not specified	2000	Referrals for dental general anaesthetics
Whittle, J.G. (83)	England	2000	The provision of primary care dental general anaesthesia and sedation in the north west region of England, 1996-1999

The referral pathway from Community Dentists to GDPs

Authors (Reference)	Country	Year	Title
Bargman, J.A. & Bulman, J.S. (101)	England	1994	Transfer of child patients from the Community Dental Service to the General Dental Service. Experiences within Wycombe Health Authority
Charnock, S., Owen, S., Brookes, V. & Williams, M. (70)	England	2004	A community based programme to improve access to dental services for drug users
Crawford, A.N., Boye, U., Baggett, J. & Roberts, K. (102)	England	1998	The transfer of child patients from the community dental service to the general dental service
Dailey, Y.M., Crawford, A.N., Humphris, G. & Lennon, M.A. (104)	England	2001	Factors affecting dental attendance following treatment for dental anxiety in primary dental care
Doyle, A.J., Renner, W.A. & Mellor, J. (98)	England	1979	Co-ordination of the school and general dental services in Rochdale, England
Mander, C.I. (100)	England	1993	A study of the implementation of the policy to refer children from the community dental service to the general dental service
Palmer, J.D. (71)	Not specified	1993	GDS and CDS--are they on the same side?
Rodgers, J. (103)	Not specified	2007	School dental screening does not increase dental attendance rates or reduce disease levels
Threlfall, A.G., Milsom, K., Catleugh, M., Kearney-Mitchell, P., Blinkhorn, A. & Tickle, M. (72)	England and Wales	2003	A survey of school dental screening practise in community dental services of England and Wales in 2003
Zoitopoulos, L. & Jenner, A. M. (99)	England	1991	Referral of child patients from the Community Dental Service to the General Dental Service: one year's experience

The referral pathway between Community Dentists

Authors (Reference)	Country	Year	Title
Charnock, S., Owen, S., Brookes, V. & Williams, M. (70)	England	2004	A community based programme to improve access to dental services for drug users
Hally, J., Clarkson, J.E. & Newton, J.P. (68)	Scotland	2003	Continuing dental care for Highlands elderly: current practice and attitudes of dental practitioners and home supervisors
Harris, R.V., Pender, S.M., Merry, A. & Leo, A. (69)	England	2008	Unravelling referral paths relating to the dental care of children: a study in Liverpool

The referral pathway between GDPs and Specialists

Authors (Reference)	Country	Year	Title
Ashley, P.F., Parry, J., Parekh, S., Al-Chihabi, M. & Ryan, D. (73)	England	2010	Sedation for dental treatment of children in the primary care sector (UK)
Barnes, J.J., Patel, S. & Mannocci, F. (131)	Northern Ireland	2011	Why do general dental practitioners refer to a specific specialist endodontist in practice?
Bell, G. (119)	England	2007	An audit of 600 referrals to a primary care based oral surgery service
Bradley, S.M., Williams, S., D'Cruz, J. & Vania, A. (115)	England	2007	Profiling the interest of general dental practitioners in West Yorkshire in using teledentistry to obtain advice from orthodontic consultants
Bradley, M., Black, P., Noble, S., Thompson, R. & Lamey, P.J. (132)	Northern Ireland	2010	Application of teledentistry in oral medicine in a community dental service, N. Ireland
Brown, I.D., Stephens, C.D. & Usiskin, L.A. (105)	Not specified	1982	An investigation into factors influencing the amount of orthodontic treatment attempted by the recent graduates of two dental schools
Cheshire, P.D. (125)	England	2002	Why undertake outreach into general dental practice?
Cheshire, P.D., Saner, P., Lesley, R., Beckerson, J., Butler, M. & Zanjani, B. (130)	England	2011	Dental practitioners with a special interest in periodontics: the West Sussex experience
Clark, S. (116)	Not specified	1995	Minor oral surgery 'specialisation' in general dental practice
Clark, S. (117)	Scotland	1995	Professional attitudes to specialisation and minor oral surgery in general dental practice
Cook, J., Edwards, J., Mullings, C. & Stephens, C. (112)	England	2001	Dentists' opinions of an online orthodontic advice service
Cook, J., Mullings, C., Vowles, R. & Stephens, C. (55)	England	2002	The use of teledentistry to provide GDPs with advice in orthodontics
Coulthard, P., Kazakou, I., Koron, R. & Worthington, H.V. (118)	England	2000	Referral patterns and the referral system for oral surgery care. Part 1: General dental practitioner referral patterns
Crawford, A.N. (106)	Not specified	1994	The future provision of specialist oral surgery and orthodontic services

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Author	Year	Country	Title
Davies, B.J.B. & Macfarlane, F. (21)	2010	Not specified	Clinical decision making by dentists working in the NHS General Dental Services since April 2006
Dyer, T.A. (122)	2013	England	A five-year evaluation of an NHS dental practice-based specialist minor oral surgery service
Dyer, T.A. & Dhamija, A.C. (120)	2009	England	Evaluation of an NHS practice-based minor oral surgery service
Field, J.C., Rousseau, N., Thomason, J. M., Exley, C., Finch, T., Steele, J.G. & Ellis, J.S. (133)	2009	England	Facilitation of implant provision in primary care
Jackson, O.A., Cunningham, S.J., Moles, D.R. & Clark, J.R. (51)	2009	England	Orthodontic referral behaviour of West Sussex dentists
Kendall, N. (52)	2009	England	Improving access to oral surgery services in primary care
Kisely, S., Howell, K. & Green, J. (110)	1997	England	Pathways to orthodontic care
Kitchen, R.B.M.G. (74)	2002	Not specified	Same dentist rule
Langford, J.W. & Ferguson, J.W. (108)	1995	England	A comparison of consecutive orthodontic referrals seen by a consultant unit and specialist orthodontic practitioners
Linden, G.J. (127)	1998	Northern Ireland	Variation in periodontal referral by general dental practitioners
Linden, G.J., Stevenson, M. & Burke, F.J. (128)	1999	Northern Ireland	Variation in periodontal referral in 2 regions in the UK
Marshall, K.F. (134)	2006	Not specified	Fee-splitting
McComb, J., Wright, J. & O'Brien, K. (109)	1995	England	Dentists' perceptions of orthodontic services
Nixon, P.J. & Benson, R.E. (50)	2005	England	A survey of demand for specialist restorative dental services
Noble, P.M. (107)	1994	England	Audit in orthodontic practice: how well do we communicate with our referring practitioners?
Nuttall, N.M., Steed, M.S. & Donachie, M.A. (126)	2002	Scotland	Referral for secondary restorative dental care in rural and urban areas of Scotland: findings from the Highlands & Islands Teledentistry Project

Author	Country	Year	Title
O'Brien, K., Mattick, R., Mandall, N., Wright, J., Conboy, F. & Gosden, T. (113)	England	2001	Are specialist outreach clinics for orthodontic consultation effective? A randomised controlled trial'
O'Brien, K., Wright, J., Conboy, F., Bagley, L., Lewis, D., Read, M., Thompson, R., Bogues, W., Lentin, S., Parr, G. & Aron, B. (111)	England	2000	The effect of orthodontic referral guidelines: a randomised controlled trial
O'Neill, E., Gallagher, J.E. & Kendall, N. (121)	England	2012	A baseline audit of referral and treatment delivered to patients in the intermediate minor oral surgery service in Croydon PCT
Pollock, G.R. & Morgan, C.L. (123)	Not specified	2000	Patient knowledge concerning their referral to a restorative dental unit in a community clinic: a pilot study
Pope, H. (53)	England	2012	A description of a specialist led primary care based oral surgery service
Scuffham, P.A. & Steed, M. (124)	Scotland	2002	An economic evaluation of the Highlands and Islands teledentistry project
Sharpe, G., Durham, J.A. & Preshaw, P.M. (129)	England	2007	Attitudes regarding specialist referrals in periodontics
Stephens, C.D. & Cook, J. (114)	UK	2002	Attitudes of UK consultants to teledentistry as a means of providing orthodontic advice to dental practitioners and their patients

Appendix 8: Characteristics of included articles

Characteristic	Number of articles				
Referral pathway	GDPs to Community dentists	Community dentists to GDPs	Between community dentists	GDPs to Specialists	All included articles[1]
	26	10	3	38	72
Location (country)[2]					
England	15	8	2	23	46
Scotland	3	0	1	3	6
Wales	2	1	0	0	3
Northern Ireland	2	0	0	4	6
UK	0	0	0	1	1
Not specified	4	2	0	7	11
Date					
1970s	0	1	0	0	1
1980s	0	0	0	1	1
1990s	8	5	0	9	21
2000s	15	4	3	20	39
2010s	3	0	0	8	10
Type of article					
Research	10	3	2	20	35
Service evaluation[3]	13	5	1	15	34
Opinion article	1	2	0	1	3
Letter to editor	2	0	0	2	4
Authors include a dentist[4]					
Yes - GDP	3	1	0	8	12
Yes - Community dentist[5]	12	5	2	4	21
Yes - Specialist	1	1	0	10	11
Unclear	2	1	0	3	6
No	8	3	1	14	24
Includes a participant voice[6]					
Yes – patients or parents	3	2	1	1	6
Yes – dentists or managers	8	2	0	11	20
No	17	6	2	26	48

Notes:

[1] Some articles relate to more than one pathway so the total for all included articles is not the sum of the previous 4 columns.

[2] Some articles relate to more than one country of the UK, some relate to the whole of the UK and some related to the UK but did not specify the location.

[3] Includes evaluation, audit or description of a single service.

[4] Where it was evident from the authors' details section of an article that one of more authors were dentists practising clinical dentistry in PDC in the UK, e.g. General Dental Practitioner, Dental Officer, this has been indicated in the above table. This has been specified to illustrate the extent to which dentists who are involved with making or receiving referral have contributed to the articles included in this review. Some articles included the perspective of more than one type of participant in the referral process. Authors are not considered to represent the 'participant voice', with the exception of authors who had written individual letters to journal editors.

[5] Includes clinical directors as they normally provide some clinical care in a primary care setting.

[6] Some articles included the participant voice of patients or parents and also dentists or managers. Dentists who appear to be working in academia or Dental Public Health are not recorded as they normally do not provide clinical care in a primary care setting.

Appendix 9: Synthetic constructs for the referral pathway from GDPs to community dentists

- Professional roles in relation to potentially vulnerable patients
- Referral as handover of responsibility for patient management reasons
- Complex referral pathways
- The dental practice as a business which must remain financially viable
- Culture and expectations
- Unintended consequences of policy change
- Interpreting risk and caring for children was an emotive issue
- Communicating options and offering alternatives
- Referral criteria and inappropriate GA referrals
- Professional responsibilities and role ambiguity
- Lack of communication between dentists
- The CDS could receive, and accept, referrals when there was a lack of alternative referral options
- Little information from patients' perspectives

Appendix 10: Synthetic constructs for the referral pathway from community dentists to GDPs

- Changes imposed by external policymakers
- Differing values and perceptions about roles and responsibilities
- Incompatible professional groups
- Autonomy counteracted policy
- Systemic lack of coordination in primary dental care
- Integration was possible but exceptional
- Limited exploration of GDPs' perspectives
- Limited exploration of patients' perspectives

Appendix 11: Synthetic constructs for the referral pathway between community dentists

- Referrals between colleagues facilitated patient care within the CDS
- Community dentists had a range of skills and experience
- The CDS represented a diverse group of services
- No information from community dentists' perspectives
- No information from patients' perspectives

Appendix 12: Synthetic constructs for the referral pathway between GDPs and specialists

- GDPs referred patients for complicated dental care
- GDPs referred patients as a precaution
- Non-clinical factors and GDPs' perceptions influenced referral decisions
- There were financial incentives, and disincentives, to refer patients
- GDPs could perceive specialists as a threat
- Variation in specialist service models and availability
- GDPs were considered to be gatekeepers to specialist services
- Referral systems worked better with clear referral threshold criteria
- Pressures upon secondary care prompted action on managing referrals
- Referrals could be perceived as inappropriate
- Innovative commissioning resolved pressures on secondary care
- Coordination of specialist services appeared to influence efficiency
- Use of technology could improve equitable access
- Outreach services could benefit patients but incurred opportunity costs
- Specialists in practice perceived GDPs as customers
- Limited exploration of GDPs' perspectives
- Limited exploration of patients' perspectives

Appendix 13: Constructs relating to role ambiguity regarding potentially vulnerable patients, from the referral pathway from GDPs to community dentists

1st order constructs	Definition	Source (reference)	Example quote
GDPs wary of making children anxious through providing treatment	GDPs perceived that there was a risk of causing a child anxiety through active treatment in the dental surgery.	Threlfall et al., 2007 (91) Webb, 2000 (82)	"I have started to do more and more extractions myself just with a local anaesthetic. You have to pick your cases very carefully; otherwise you have got a dental phobic for life." (91: p.95) "three and four year olds who need loads of teeth out, and I can't do that under local, well I could, but kids would come out psychologically affected." (91: p.95) "It is, however, a very fine line that we tread between accomplishing what is technically possible and risking a good compliance with dental procedures for the future. I am sure that most of us can recall extracting a single unit successfully with local analgesia, only to have converted a formerly compliant patient into an anxious patient..." (82: p.65)

2nd order constructs	Definition	Source (reference)	Example quote
Reasons for referring children	GDPs referred children for dental extractions and other treatments, which they perceived the child to be unable to manage in the dental practice.	Clayton & Mackie, 2003 (84) Cooke et al., 1998 (78) Macpherson et al., 2005 (88) MacCormac & Kinirons, 1998 (79)	"A number of studies have been published reporting the factors that influence the decision to prescribe a dental general anaesthetic. These influences include young age, poor patient cooperation, fear and anxiety, need for multiple extractions, acute infection, medical conditions and orthodontics. Also poor cooperation during previous restorative treatment and anticipated difficult extractions can be included." (84: p.561) "The referral letters often only stated "Please see and treat", hence offering no particular reason for transferring the patient to the CDS. Otherwise, the presenting complaint was given alongside a request for some specific treatment, hence two reasons for referral could be recorded." (78: p.587) "The results may also be interpreted that the referral of non cooperative children which is time-consuming is indirectly a referral for economic reasons." (78: p.589-90) "The most common reasons for DGA referral were failure of the child to co-operate with treatment (30%), number of extractions (21%) and dental

Theme		Summary	Quotes / Evidence
Overlap of, and assumptions about, responsibilities of referring and receiving dentists	Clayton & Mackie, 2003 (84) Podesta & Watt, 1996 (77) Thomas et al., 2004 (86) Tochel et al., 2004 (87)	Whilst guidelines state the roles of referring dentists and those receiving referrals, in reality, these roles become blurred.	'anxiety (18%)… However, in 26% of cases there was either no reason given in the referral letter or no such letter in the notes.' (88: p.285) 'Referrals of 143 (81%) were preceded by dental pain and a history of swelling was reported in 61 (34%)… For 165 (93%) of patients, two or more reasons [for referral] were given and for 92 (52%) four or more were given. The most common reasons were that multiple extractions were required, the patient feared or was anxious of treatment, or they were of young age. The separate reasons of patient's preference and parent's preference were also frequently given, each being cited for about half the children referred.' (79: p.192) 'It does appear that referrers cited anxiety as a reason in many cases where it was not reported by parents. It is possible that the referrer's knowledge of the traumatic nature of the treatment may have been a factor in their judgement of this issue.' (79: p.194) 'It is incumbent upon both the referring dentist and on the dentist carrying out the treatment under general anaesthesia to ensure that there is clear justification for its use and other alternatives are not possible or in the child's best interest.' (84: p.565) 'It is important that the responsibility for providing the parent and child with all relevant information relating to the GA, be clearly demarcated between health professionals…' (77: p.231) 'Discussing risks and benefits of alternative procedures is a time-consuming process. It may be that referring dentists assume that the practitioner performing the GA procedure will carry this out anyway and therefore it is unnecessary for them to do so.' (86: p.28) 'The GDC is very clear about the respective responsibilities of the primary care and secondary care teams with regard to GA procedures. Their guidelines state that the treating dentist is responsible for determining that GA is the necessary and appropriate option, and for obtaining informed consent from the patient. However, the duties of the referring dentist include the fact that when a patient is referred for a GA procedure '…a full medical history of the patient must be taken and agreement to refer obtained following thorough and clear explanation of the risks involved

Theme	Description	Citation	Quotes
			and alternative methods of pain control available.' (86: p.29)
Barriers to treating anxious patients	GDPs identified a wide range of barriers to treating anxious patients in general dental practice.	Porritt et al., 2012 (94)	'Less than half of interviewees... stated that alternative treatment options would be discussed at the CDGA assessment. Some respondents reported that referring practitioners in some areas would have already explored these alternatives.' (87: p.630-1) '...many of the assessment clinics did not include consideration of alternatives to CDGA, with some respondents assuming that the referring practitioner would already have attempted this. Consideration and provision of such alternatives may, however, be more appropriately carried out at dedicated assessment clinics.' (87: p.632) 'The most common factor which influenced a referral decision was insufficient skills/knowledge of sedation (71%), followed by lack of time (62%), the dental contract (51%), lack of equipment (37%) and lack of psychological knowledge (22%).' (94: p.200)
Limited willingness to provide, or interest in providing, domiciliary care	GDPs' actual involvement with domiciliary care indicated a much lower willingness to provide it than they claimed.	Hally et al., 2003 (68) Stevens et al., 2008 (96)	'...despite the high level of claimed domiciliary care in the Highlands and the willingness to travel long distances to see patients, dentists on average only visited one elderly patient per month with few visiting patients in long-term care... the service remains demand driven with 75% of homes having to contact the dentist before they receive care.' (68: p.92) 'Over 70%... of respondents did not feel it is important or very important for GDPs to be involved in the provision of domiciliary care. Similarly, 86.7%... did not feel that it is important or very important for the development of their practice...' (96: p.108)
Factors promoting referral of elderly people	GDPs identified a variety of reasons for referring elderly people for dental care, many of which related to patient management rather than technical skill.	Fenwick et al., 1998 (95) Hally et al., 2003 (68)	'The most common reason for referral for dental treatment was the perceived difficulties posed by the medical history...' (95: p.71) 'The majority of treatment required for a group of elderly referred patients is within the technical scope of a competent general dental practitioner. The reasons for referral appear to be associated with patient management issues as opposed to technical aspects.' (95: p.72) 'Community dentists referred mainly complex treatment (90%) and those

Synthetic constructs	Description
	unable to sit in a dental chair, salaried dentists complex medical histories (75%) and general dental practitioners would refer elderly patients with co-operational problems (79%).' (68: p.90)
Professional roles in relation to potentially vulnerable patients (68, 69, 75-96)	The literature related to potentially vulnerable groups of people, who might be unable or unwilling to seek care for themselves, including children, anxious adults and frail elderly people. There was very little information about people with clearly defined impairments, or no obvious impairments.
Interpreting risk and caring for children was an emotive issue (75-77, 80-82, 84, 85, 87, 88, 90, 91)	Doing what is best and right for children was important to dentists but interpretations of this concept differed, especially between GDP's and community dentists. Dentists appeared to hold conflicting beliefs in their interpretation of guidelines about the risks and the necessity of providing dental care under GA for children. GDP's appeared wary of creating anxiety by attempting treatment in the dental surgery, whereas community dentists were more concerned to avoid exposing children to the risks of GA.
Professional responsibilities and role ambiguity (77, 84, 86, 87, 90)	There were gaps and overlaps in perceptions about whose responsibility it was to discuss options and provide care for patients. In some cases, assumptions were being made that another dentist would discuss and attempt the alternatives at a different stage of the referral process.

Appendix 14: Constructs relating to dentists' values, from the referral pathway from community dentists to GDPs

1st order constructs	Definition	Source (reference)	Example quote
None relevant to these constructs			

2nd order constructs	Definition	Source (reference)	Example quote
Different values	Mismatch between values and priorities of policymakers, clinicians in both services, and patients.	Mander, 1993 (100) Threlfall et al., 2006 (72) Zoitopoulos & Jenner, 1991 (99)	'Most of the community dental officers admitted to some difficulty in accepting the policy of transferring children, most notably those who had entered the service when it was a school dental service.' (100: p.282) 'It [school dental screening] also highlights a possible tension between screening practice and general dental practice. For example... many general dental practitioners feel that caries in the primary dentition should not necessarily trigger a referral from screening' (72: p.238) '... it is suggested that the referral of patients who are satisfied with the quality of care received from the Community Dental Service could have serious consequences and should only be pursued with caution. Indeed, it could be argued that such a procedure mitigates against the principle of the 'safety net service' envisaged in HC(89)2.' (99: p.5)
Moral concerns	Community dentists had a moral concern over whether patients should be asked to seek dental care elsewhere.	Zoitopoulos & Jenner, 1991 (99)	'The fact that one in three of these patients refused to participate raises the question of whether it is right to force patients to leave the CDS against their will ... the philosophy of referring such patients to the GDS, as envisaged by the Department of Health, may fall short of caring for our patients properly ...' (99: p.5)
Negative stereotypes	Persistent negative perceptions of other dentists by community dentists and GDPs.	Mander, 1993 (100) Palmer, 1993 (71)	'An undercurrent of rivalry or even hostility seemed to exist between clinicians from the community and general dental services.' (100: p.283) 'The lack of good communication... prevented such concerns from being either verified or disproved.' (100: p.284)

		Bargman & Bulman, 1994 (101) Mander, 1993 (100)	'Dental surgeons from all branches of dentistry will view the overall picture from their own cloistered position, often regarding colleagues in other branches in a confrontational 'them and us' way.' (71: p.419) 'It is not uncommon to hear some community dental staff commenting that general dental practitioners are only interested in financial aspects of dental care and that they would accept supervised neglect of mouths, when the price for treatment is not right. Equally, some GDPs still see the community dental service as a dustbin in which to tip all unwanted and uneconomic patients. Again, some will view this service as a home for the idle or work-shy individuals.' (71: p.419)
Clinical autonomy	Community dentists and GDPs exerted clinical autonomy to influence (and avoid) patient transfer.	Bargman & Bulman, 1994 (101) Mander, 1993 (100)	'In Wycombe this [autonomy] is reflected in the wide variation in the proportion of patients considered for transfer by different dental officers and also in the comments made by them during interview.' (101: p.162) 'A considerable degree of autonomy was allowed in the way they [CDS dentists] chose to operate the referral procedures. Guidelines laid down were flexible and seemed to be entirely dependent upon the interpretation of the individual dental officer.' (100: p.282)
Resistance and reluctance	Community dentists resisted discharging patients; GDPs were reluctant to take on some new patients; patients were reluctant to leave familiar dental care provider.	Bargman & Bulman, 1994 (101) Mander, 1993 (100) Zoitopoulos & Jenner (99)	'A letter was circulated to all dental practitioners… asking whether or not they would be prepared to accept new child patients under such a transfer scheme. This was circulated to 125 practitioners, and replies indicating willingness to participate were received from 23.' Bargman & Bulman, 1994. (101: p.161) 'General dental practitioners complained of 'suffocation by paper' following the introduction of the new contract and were unwilling to co-operate in schemes which would involve them in more paperwork.' (100: p.283) 'Concerns were expressed by community dental officers regarding selective acceptance of referred children by general dental

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practitioners and this reason was used to explain their reluctance to refer.' (100: p.284)

'A total of 85 (76%) patients agreed and 27 (24%) refused to participate in the scheme at the outset. A further five refused at a later date... Three of the 69 who attended and two of the 16 who failed to attend asked to be re-admitted for care with the CDS.' (99: p.5)

Synthetic constructs	Description
Differing values and perceptions about roles and responsibilities (71, 72, 99-102)	Attempts to reorient services by implementing policy change highlighted differences in priorities, which militated against successful change. Diversity in priorities exposed pre-existing values-based differences in dentists' perceptions about professional roles and the overall purpose of the CDS and general dental practices.
Incompatible professional groups (71, 72, 99, 100)	Community dentists and GDPs were portrayed as two completely separate professional groups which were unable to work together at an organisational, nor individual, level, as a consequence of inherent differences of values, role perceptions and priorities.
Autonomy counteracted policy (99-102)	Patients and clinicians used their autonomy to counteract externally imposed changes to dental care arrangements.

Appendix 15: Constructs relating to diversity within the CDS, from the referral pathway between community dentists

1st order constructs	Definition	Source (reference)	Example quote
None relevant to these constructs			

2nd order constructs	Definition	Source (reference)	Example quote
The CDS provided for a wide range of patients in primary care	Community dentists managed a wide range of patients within their organisation and only referred to secondary care in exceptional situations	Charnock et al., 2004 (70) Hally et al., 2003 (68) Harris et al., 2008 (69)	'The remaining 57 (61.5%) were referred to either the Department of Special Care Dentistry (formerly known as the community dental service or CDS) or personal dental service (PDS) dependant[sic] upon from which of the two localities they had been referred. These referrals were made as many of the users had expressed some reticence about being referred to a GDP.... Because of this it was felt that users were more likely to attend for care, if appointments were made with the service that they had requested.' (70: p.387) 'Most general and salaried dentists would refer [elderly people] to the Community Dental Service and community dental officers to a special needs colleague.' (68: p.90) 'Relatively few CDS dentists, by contrast, had referred children to LUDH in the previous year. Three (14%) had referred children with complex medical histories, six (27%) had referred children with dental anomalies, and four (18%) had referred children with dental trauma. Only two dentists (9%) had referred to LUDH children with learning or physical disabilities or anxious children for RA sedation....' (69: p.48-9) '...eight CDS dentists (36%) had referred anxious children for RA sedation to another CDS dentist. It appears that GA referrals were also largely carried out 'in-house', with 13 CDS dentists (59%) referring children in need of a GA to the CDS service based in AH and seven CDS dentists (32%) referring to the GA service provided by the CDS based in the Whiston Hospital.' (69: p.49)

Community dentists referred to colleagues with designated special needs roles	Generalist community dentists referred some patients to colleagues with designated special needs roles	Hally et al., 2003 (68) Harris et al., 2008 (69)	'Most general and salaried dentists would refer [elderly people] to the Community Dental Service and community dental officers to a special needs colleague.' (68: p.90)
			'Community dentists however saw that the provision of difficult treatment was the main reason for referral. Perhaps this is another indication relating to the growing complexities of the elderly population 8nd why so many community dentists want extra training.' (62: p.93)
			'Due to the fact that the Highland area does not have a dental hospital…the majority of community officers would refer to a special needs colleague. This raises some issues in terms of how a special needs officer can accommodate this increasingly complex patient group.' (68: p.93)
			'…eight CDS dentists (36%) had referred anxious children for RA sedation to another CDS dentist. It appears that GA referrals were also largely carried out 'in-house', with 13 CDS dentists (59%) referring children in need of a GA to the CDS service based in AH and seven CDS dentists (32%) referring to the GA service provided by the CDS based in the Whiston Hospital.' (69: p.49)
Some community dentists have additional skills in paediatric dentistry	There are some paediatric specialists and generalists with additional skills working in the CDS, but demand may exceed capacity	Harris et al., 2008 (69)	'There are, however, some specialists working in the CDS setting, most often in the field of paediatric dentistry…' (69: p.45)
			'…it is evident that although the CDS might provide a local network of dentists with some postgraduate training and qualification, this may not be sufficient to meet the demand for this type of care [management of dentally anxious children].' (69: p.50)
			'Although only one CDS dentist had a postgraduate qualification specifically in paediatric dentistry, a further three CDS dentists had obtained a modular Master's degree, which included some postgraduate training in paediatric dentistry.' (69: p.49)

		Hally *et al.*, 2003 (68)	'The scope of cross speciality experience between the different dental groups ranged from 85% of community and joint post holders having worked in general practice for a minimum of six months, to 9% of general dental practitioners having had community experience.' (68: p.89)
Community dentists have some general dental practice experience	Many community dentists have experience of working in general dental practice as well as the CDS		

Synthetic constructs	**Description**
Referrals between colleagues facilitated patient care within the CDS (68, 69, 70)	Community dentists appeared to use the skill mix of colleagues within their own organisation, in order to provide patients with care when it appears to be beyond their own skill set. This appeared to occur in preference to making a referral to a secondary or tertiary care provider, when the option to refer was available, as well as occurring when no alternative options were available.
The CDS represented a diverse group of services (68, 69, 70)	The CDS appeared to encompass a range of organisations which had diverse service roles and catered for the dental needs of many different patient groups.

Appendix 16: Constructs relating to the influence of secondary care upon referrals, from the referral pathway from GDPs to specialists

1st order constructs	Definition		Example quote & source
None relevant to these constructs			

2nd order constructs	Definition	Source (reference)	Example quote
Pressure from increasing demands on secondary care was a prompt to action	Commissioners and health service managers were prompted to act in relation to referrals when increasing demands upon limited secondary care resources resulted in excessive waiting times	Bradley et al., 2010 (132) Cheshire et al., 2011 (130) Kendall, 2009 (52) McComb et al., 1995 (109) Pope, 2012 (53)	'Currently, patients with oral medicine conditions from all areas of Northern Ireland are referred by dentists and doctors to a small number of specialist services… On receipt of the referral the consultant makes an assessment of the urgency of the case and the patient is placed on a waiting list. Until the recent implementation of waiting list initiatives… patients remained on the waiting list for long periods of time. Analysis of these patient profiles highlights that many need both multiple treatment and review appointments of their chronic conditions, and consequently remain in the hospital system for significant periods of time. This increases the waiting time for these services.' (132: p.399)

'Resource issues in the secondary sector meant that nation-wide most trusts produced referral and acceptance criteria in an attempt to match capacity with demand and therefore stay within waiting list targets.' (130: p.127

'Increasing demand for oral surgical services has been recognised for some time. Hospital treatment for these cases is often less cost-effective than similar treatment provided in a primary care setting.' (52: p.137)

'An effect of this increase in referral numbers [to hospital] was a continued rise in the number of patients waiting for elective inpatient and outpatient procedures, despite increased activity at the hospital… The volume of patients and waiting times placed the hospital Trust in jeopardy of breaching the 18-week referral-to-treatment (RTT) targets for OMFS [oral and maxillofacial surgery].' (52: p.139)

'At present some aspects of the provision of orthodontic treatment in the UK are unsatisfactory, one area of concern being excessively long treatment waiting lists… One possible solution to this problem is to increase the number of GDP referrals to the most appropriate providers of |

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Theme	Description	References	Quotes
Inappropriate referrals and pressures on secondary care services	Referrals were considered to be problematic and inappropriate, where they were perceived to increase waiting lists for secondary care services. This was reported frequently in relation to orthodontics and oral surgery but was not usually reported in the restorative dental specialties.	Cook et al., 2001 (112) Crawford, 1994 (106) Dyer, 2013 (122) Kisely et al., 1997 (110) Stephens & Cook, 2002 (114)	secondary care, when available.' (109: p.461-2) 'In 1994 waiting times for hospital for oral surgery and maxillofacial procedures were unacceptably long.' (53: p.5) 'A remote orthodontic advice service might reduce the high level of inappropriate referrals to consultants and provide GDPs with quick access to advice that would enable them to tackle a wider range of cases themselves.' (112: p.334) 'An important aspect of improving lines of communication between GDP and specialist is the provision of some elementary training to referring dentists in identifying the relevant criteria indicating early orthodontic referral. This could eliminate much of the inappropriate referral of children who are too young for their initial orthodontic assessment...All this would contribute to improving prompt access to specialist orthodontic care for children with more serious malocclusions.' (106: p.144) '...referring practitioners were expected to diagnose, treatment plan and explain the procedure for which they [patients] were being referred... Better assessment and referral of patients could have prevented some of these [failed] appointments in that many were inappropriate for treatment in primary care...' (122: p.223) 'Patients attending the HDS [Hospital Dental Service] were significantly less likely to be judged to have been referred to the correct setting (63 percent) compared with those in the CDS and GDS (95 per cent)...' (110: p.152-3) '...a high proportion of referrals made to UK orthodontic consultants are judged to be inappropriate and this adds unnecessarily to consultant waiting lists.' (114: p.138)
Defining inappropriate referrals	Inappropriate referrals in oral surgery were defined retrospectively as those which did not require complex	Kisely et al., 1997 (110) O'Neill et al., 2012 (121)	'There are three aspects to appropriateness of referral to orthodontic services: the severity of the condition, the complexity of the treatment required and the timing of the referral. These three issues need to be dealt with separately. For instance, symptom severity and treatment complexity may not coincide, as some patients with severe symptoms may require fairly simple interventions, with implications for the most

	treatment. Inappropriate referrals in orthodontics were defined as those which were not referred at the correct time for treatment and those which did not reach the severity threshold. In addition, referrals which were sent to the incorrect provider for the complexity of the orthodontic treatment were also considered inappropriate.		appropriate service for treatment.' (110: p.149) 'One in eight teeth (13%) extracted by the IMOS [intermediate minor oral surgery service] providers were recorded in the clinical notes as simple forceps extractions. Under the acceptance criteria, these should have been considered inappropriate to refer.... It must be recognised that the clinical skills of the oral surgery specialists who work in the IMOS service will be more advanced than those of an average GDP. As a consequence, what is considered by a specialist as a simple procedure may present concerns to the GDP.' (121: p.27)
Referral criteria for pre-existing orthodontic services were contentious and applied inconsistently	Orthodontic specialists were unable to agree on key referral criteria (timing and severity). This contributed to the persistence of unsuitable referrals being received and accepted in specialist services. GDPs did not use existing criteria, created by specialists, to assess severity of orthodontic problems prior to referral.	*Jackson et al.*, 2009 (51) O'Brien *et al.*, 2000 (111)	'In this study, 76% of dentists did not routinely use the IOTN when making a referral.' (51: p.5) 'Consideration should be given to whether the IOTN is an acceptable tool to be used by dentists when making a referral for orthodontic treatment, given the considerable knowledge gap in this area.' (51: p.6) '... there were differences between the opinions of the orthodontists in certain 'key' areas. Some of the group were keen to include information that would advise dentists on the correct age to refer patients, thus reducing the referral of children too early for treatment. Others were happy to accept this group of children and keep them under review. We could not achieve consensus on this issue and information on this type of referral was not included. Similarly, we could not achieve agreement on the inclusion of the Index of Orthodontic Treatment Need. Most of the orthodontists felt that the referral of patients with low need was not a problem.' O'Brien 2000 (111: p.394-5) 'It was disappointing to find that the referral guidelines did not have an

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effect on the appropriateness of referral.' O'Brien 2000 (111: p.396)

Synthetic constructs	**Description**
Pressures upon specialist services in secondary care prompted action on managing referrals (52, 53, 106, 109, 111, 120, 121, 130, 132)	Pressure on specialist secondary care services, presenting as long waiting times and failure to prioritise complex cases, combined with recognition of poor cost-effectiveness, appeared to operate as prompts to action for commissioners and secondary care providers. These actions could include managing perceived inappropriate referrals by developing referral criteria or increasing the rigidity of referral criteria, and managing perceived legitimate increases in referrals for specific treatments by commissioning specialist care provision in the primary care setting.
Referrals could be perceived as inappropriate (50, 55, 106, 108-110, 112, 114, 119, 121, 122)	Referrals were termed 'inappropriate' in specific situations where it was perceived that referred patients should have been managed in another setting and where there was a problem of excess demand for secondary care services, usually presented as increasing waiting lists. Inappropriateness was reported frequently by commissioners and those investigating high-demand secondary care services such as, orthodontics and oral surgery, but was not usually reported in the restorative dental specialties or by specialist providers in primary dental care.

Appendix 17: PRISMA flow diagram of database search process for dentists' role perceptions supplemental search
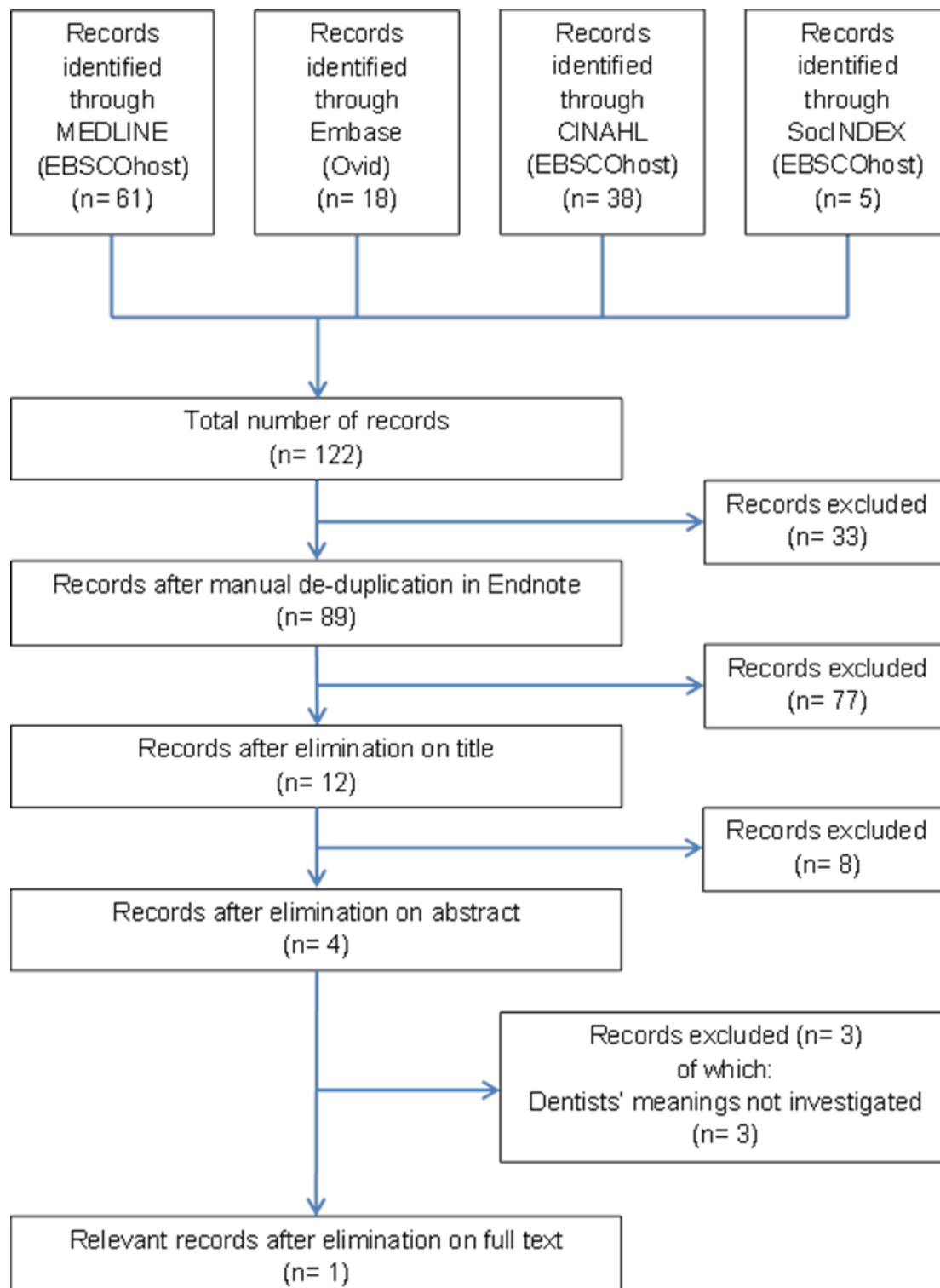
Appendix 18: Dentists' role perceptions search strategy

Search strategy for Medline, CINAHL and SocINDEX (via EBSCOhost):

Line number	Search terms
S1	TI dental OR TI dentistry OR TI dentist
S2	TI role OR TI (roles and responsibilities) OR TI role theory
S3	perception OR perceptions or attitudes or opinion OR meaning making OR meaning in life OR meaningful work
S4	S1 AND S2 AND S3

Search strategy for Embase (via OVID):

Line number	Search terms
S1	(dental or dentistry or dentist).m_titl.
S2	(role or responsibility* or "role theory").m_titl.
S3	(perception* or attitude* or opinion* or meaning*).m_titl.
S4	S1 AND S2 AND S3

Appendix 19: Dentists' role perceptions screening criteria

Inclusion criteria:

- Relates to professional role of individual qualified dentists
- Investigates perceptions of dentists themselves, rather than author or others
- Uses suitable (qualitative) methods to identify meanings attached to roles
- Involves primary dental care: specifically, non-specialist clinical work
- English language
- Any country

Exclusion criteria:

- Relates to roles of other dental care professionals or dental students, including role substitution
- Relates to dental research and teaching roles (including dental practitioners when providing an educational role), rather than clinical work
- Uses methods which do not allow dentists' perceptions of meaning to be conveyed
- Authors' statements of, or instructions/guidelines/opinions about, the roles dentists can play in specific circumstances (as opposed to the meanings dentists themselves, as participants in the study, give to their role)
- Relates to role of organisations, dental specialties or dentistry as a whole
- Relates to role of cells, enzymes, genes, transmitter chemicals, forces, dental materials, medications, treatments, preventive strategies, social, emotional or behavioural factors, relatives, communication methods, assessment methods or systems
- Non-English language

Appendix 20: Confirmation of ethical approval

RESEARCH
WITH
PLYMOUTH
UNIVERSITY

21st December 2015
CONFIDENTIAL

Zoe Allen
Peninsula School of Dentistry
Plymouth University
C 507
Portland Square
Plymouth
PL4 8AA

Dear Zoe

Application for Approval by Faculty Research Ethics Committee

Reference Number: 15/16-512
Application Title: Dentists' perceptions of role ambiguity and role complexity, in the context of referrals between UK primary dental care services.

I am pleased to inform you that the Committee has granted approval to you to conduct this research.

Please note that this approval is for three years, after which you will be required to seek extension of existing approval.

Please note that should any MAJOR changes to your research design occur which effect the ethics of procedures involved you must inform the Committee. Please contact Sarah Jones (email sarah.c.jones@plymouth.ac.uk).

Yours sincerely

Professor Michael Sheppard, PhD, FAcSS
Chair, Research Ethics Committee -
Faculty of Health & Human Sciences and
Peninsula Schools of Medicine & Dentistry

Faculty of Health & Human Sciences   T +44 (0)1752 585339   Professor Michael Sheppard
Plymouth University   F +44 (0)1752 585328   CQSW BSc MA PhD FAcSS
Drake Circus   E sarah.c.jones@plymouth.ac.uk   Chair, Faculty Research Ethics
Plymouth PL4 8AA   W www.plymouth.ac.uk   Committee

Appendix 21: Sampling grid

All				
	Current working location	City/urban	Town/suburban	Rural/remote
		Which region?		
	Past working experience	GDS	CDS	Secondary care
		Other primary dental care?		
	Past working location	Always in same area	Also other areas of UK	Also outside UK
	Training location	Local dental school	Elsewhere in UK	Outside UK
	Time since graduation	0-5 years	6-10 years	11-15 years
		16-20 years	21-25 years	26-30 years
		31-35 years	36-40 years	>40 years
	Gender	Male	Female	
	Age	20s	30s	40s
		50s	60s	70s

Current working situation…

GDP				
	Organisational structure	Independent practice	Local group of practices	National corporate practice
	Remuneration system	Private	Insurance	NHS GDS contract
		NHS PDS contract	NHS new contract pilot	NHS additional services?
		Other?		
	Employment status	FD	Associate	Salaried
		Clinical lead	Principal	Other?

CDS				
	Organisational structure	NHS Trust	Community Interest Company(CIC)	Other?
	Range of services provided by organisation	GA	Sedation (IV/RA)	Domiciliary Care
		Prison Dentistry	Oral Health Promotion	Access
		General Dentistry	Special Care	Out of Hours
		Specialist services ?		
	Employment status	FD	Dental Officer	Generalist Senior Dental Officer
		Specialist Senior Dental Officer	Clinical Director	Other?

Other?				
	Make notes			

Appendix 22: Sample wording from an invitational email

Dear [name of contact person],

As part of my PhD research within Primary Dental Care, I am currently conducting an interview study with dentists who work in community dental services and general dental practices. I am keen to recruit dentists from urban, suburban and rural areas throughout England, to increase the transferability and relevance of the findings.

I would be very grateful if you could forward the message below, as well as the attached flyer, to dentists from your network of dental practices and community services across [area]. Thank you for your assistance in raising primary care dentists' awareness of this research opportunity.

Best wishes,

Zoe

Zoe Allen
Academic Clinical Fellow in Primary Dental Care
Plymouth University Peninsula Schools of Medicine & Dentistry

_____

Dear Colleague,

I am currently researching dentists' perceptions of their professional roles within primary dental care. I would like to invite dentists who work in general dental practices and community dental services in England to take part in this study.

You can access the research webpage directly at:

https://www.plymouth.ac.uk/research/dentists-perceptions-of-their-clinical-roles

You are very welcome to view the webpage and to take part in this study. I have attached a flyer which briefly explains the study and links to the study webpage, where you can find out more and take part.

You can take part during the week, or alternatively on a weekday evening or at a weekend, if this is more convenient to you. Thank you for considering this research opportunity, which has received ethical approval from Plymouth University.

Best wishes,

Zoe

Zoe Allen
Academic Clinical Fellow in Primary Dental Care
Plymouth University Peninsula Schools of Medicine & Dentistry

Email: dentistroleresearch@plymouth.ac.uk
Visit the study webpage.

Appendix 23: Screen shots of study web page at recruitment stage

This consent form is available to complete online through SurveyMonkey. SurveyMonkey is a third-party data capture tool which is not owned or managed by Plymouth University. Information about how your data is treated can be found on Survey Monkey's Privacy Policy page. If you wish to provide your consent but do not wish to use SurveyMonkey to do this, please use the Word document format, which is available on the study webpage.

How do you view your professional role as a dentist?

Research suggests that dentists have varying perceptions of their own role in dentistry and the roles of dentists who work in other areas of primary dental care. This may be important as it could help to explain why there can be variations in how patient referrals are managed within primary care. However, there is no published research in which dentists have been asked for their viewpoints about the subject.

We are conducting a research study which gives dentists a unique opportunity to take part in interviews about their perceptions and experiences of professional roles and referrals within primary dental care. The aim of this study is to generate understanding about what it means to be a dentist in primary care and how that may influence the use of referral services.

Would you like to make an important contribution to research by sharing your views about your role as a dentist?

Appendix 24: Participant information

Participant Information

Perceptions of Dentists' Professional Roles within Primary Dental Care

Purpose of study

This research aims to explore the perceptions that dentists working in primary care have about their role. I am a dentist currently undertaking a PhD about referral pathways in primary dental care.

In this research study, I will be interviewing dentists who work in all types of general dental practices and community dental services, throughout England. The aim is to generate understanding about what it means to be a dentist in primary care and how that may influence the use of referral services.

I am interested to know what you think about your professional role, and what you think about the roles of dentists working in other aspects of primary dental care. In particular, I would like to know how you view the roles of referring dentists and dentists who receive referrals, when patients are referred within primary dental care.
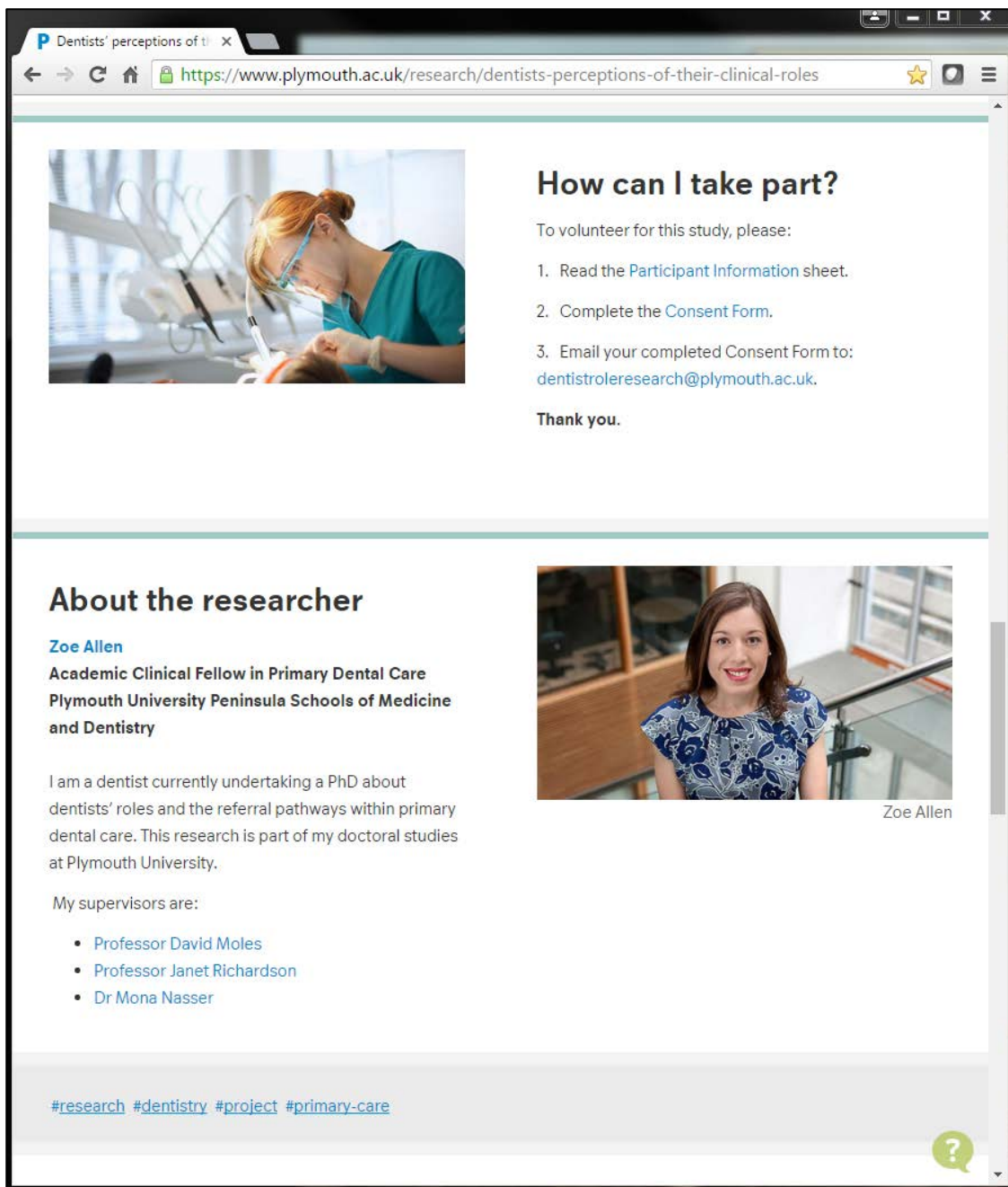
Who can take part in the study?

If you are a dentist and you currently work in primary dental care in England, you are eligible to take part in this study. For this study, primary dental care includes general dental practices, community dental services and other primary care dental services which provide the range of dental care traditionally provided in general dental practice and community dental services. It does not include limited specialist practices or Defence Dental Services.

What would taking part involve?

Taking part in the study would involve an interview at a convenient time for you. It would take about one hour and would take place online (e.g. using Skype). Alternatively, a telephone interview could be arranged. Depending on your location, it may be more practical to complete the interview face-to-face. The interview will include open questions so that you can tell me about your views in your own words. The interview will be audio-recorded verbatim. Video images will not be recorded.

What are the possible benefits of taking part?

In taking part in this research, you will be contributing to knowledge about what it means to be a dentist, working and making referrals, within primary dental care in England. This may help to inform future developments designed to improve primary dental care for patients and dentists.

What are the possible disadvantages and risks of taking part?

It is not anticipated that there is any risk of harm to you from this study. It is unlikely that the topics discussed in the interview would be upsetting for you. If you felt distressed, you would have the opportunity to pause or end the interview and I would recommend that you contacted a support service or your GP for further help.

How will my information be kept confidential?

I will conduct the interviews alone in a quiet room to ensure privacy during the interview. Interviews will be transcribed as soon as possible and the original audio recording will then be deleted from the recording device. I will use a unique identifier code to anonymise the transcripts. The transcripts will be stored on password-protected, encrypted devices. Paper transcripts and contact details will be stored separately in a locked filing cabinet, in a secure building.

Your personal details will not be published and where quotations are used, they will be presented anonymously and confidentially, so that they cannot be attributed to individuals.

An exception to maintaining confidentiality may occur if you have raised a previously unreported, unprofessional issue. In this situation, I would be required to discuss the issue with my supervisors and consider whether any follow-up is necessary with the relevant regulatory authority.

What if I don't want to carry on with the study?

Participation is voluntary and you can withdraw from the study by email before the interview, or verbally during the interview. You can also decline to answer a particular question, without withdrawing from the study as a whole.

What happens when the study is finished?

I will post a summary report on the study webpage when the study is completed You will not be identifiable in the report. The study will be presented through research conferences and publication in research journals. The anonymised data will be retained securely for 10 years at Plymouth University. Anonymised data may be made available to other researchers in the future, for secondary data analysis.

What if I have a complaint?

If you have any comments, complaints or concerns which you would like to discuss with someone else, please contact my Director of Studies:

Prof. David Moles
Director of Postgraduate Education and Research
Peninsula Dental School
Plymouth University Peninsula Schools of Medicine and Dentistry
Dental Office
The John Bull Building
Tamar Science Park
Plymouth PL6 8BU
david.moles@plymouth.ac.uk
01752 437380

Ethical approval

This study has been approved by the Faculty Research Ethics Committee of the Faculty of Health & Human Sciences, Plymouth University.

Researcher contact details

Please contact me by email if you would like to take part in this study, or if you have any questions or concerns:

Zoe Allen
C507 Portland Square
Plymouth University
Plymouth
PL4 8AA
zoe.allen@plymouth.ac.uk

Thank you for reading this participant information.

Appendix 25: Consent form

**PLYMOUTH
UNIVERSITY
PENINSULA**
SCHOOLS OF MEDICINE & DENTISTRY

Consent form

Perceptions of Dentists' Professional Roles within Primary Dental Care

Please tick each check box to indicate that you agree with each statement:

☐ I confirm that I have read the information sheet dated 16th December 2015 (Version 1.1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

☐ I understand that this study will involve taking part in an interview, online, by telephone, or face to face, which will be recorded using an audio recorder and that the findings of the study, including anonymised quotations, will be published in research journals and presented at conferences.

☐ I understand that my participation is voluntary and that I am free to withdraw at any time without giving reason.

☐ I understand that if I disclose any previously unreported, unprofessional issues during the interview, the researcher is required to follow this up.

☐ I agree to take part in the above study.

Please add your name and the date you completed this form:

Participant Name: Click here to enter text.

Date: Click here to enter a date.

Name of Researcher: Zoe Allen

Please send the completed form, as an email attachment, to:
dentistroleresearch@plymouth.ac.uk
Sending a completed consent form to the researcher as an email attachment will be considered to represent an electronic signature.

Appendix 26: Invitational flyer

Appendix 27: Invitational PowerPoint slide

Appendix 28: Sequence of recruitment activities

Date	Method	Professional Group
13/1/16	Email/e-flyer	British Society for Oral and Dental Research
13/1/16	Email/e-flyer	Devon Independent Dental Practitioners' Group
15/1/16	Press release	The Dentist magazine
20/1/16	Email/e-flyer	London Local Dental Committee (via professional contact)
21/1/16	Email/e-flyer	Peninsula Dental School clinical supervisors
25/1/16	Email/e-flyer	Dental Foundation Training Programme Director in South West
26/1/16	Facebook and website	Local BDA group (email and e-flyer were provided)
5/2/16	Email/e-flyer	Community Dental Services across South West England (via professional contacts)
5/2/16	Email/e-flyer	Oasis dental corporate (via professional contact)
9/2/16	In person/ slide/ flyer	Local BDA group CPD meeting
11/2/16	Email/e-flyer	Dentists at practices using Denplan insurance scheme in South West (via professional contact)
15/2/16	Email/e-flyer	British Association for the Study of Community Dentistry (BASCD)
11/2/16	Email/e-flyer	Greater Manchester Local Professional Network and Senior Primary Care Manager for Greater Manchester (via professional contact)
18/2/16	In person/ flyer	Local BDA group CPD meeting
20/2/16	Flyer	South West Young Dentists' Group conference
24/2/16	In person/ flyer	Peninsula Dental School clinical supervisors' CPD meeting
1/3/16	Facebook	FGDP (email and e-flyer were provided)
4/3/16	Flyer	Devon Independent Dental Practitioners' Group meeting
10/3/16	Email/e-flyer	Two other Dental Foundation Training Programme Directors in South West
10/3/16	Email/e-flyer	Dentists in very rural area of South West (via professional contacts)
11/3/16	Press release	British Dental Journal
11/3/16	Flyer/slide	Cornwall Independent Dental Practitioners' Group meeting
16/3/16	Email/e-flyer	All Dental Foundation Training Programme Directors in East of England and Northern Deaneries
22/3/16	Email/e-flyer	Southern Dental and IDH (My Dentist) dental corporates (via a second professional contact)

30/3/16	Email/e-flyer	All Postgraduate Dental Deans, to cascade to Dental Foundation Training Programme Directors (via COPDEND)
15/4/16	In person/slide	BASCD conference
21/4/16	Email/e-flyer	Oasis, Southern Dental and IDH (My Dentist) dental corporates (via a third professional contact)
28/4/16	Email/e-flyer	Primary Care Commissioning Manager for Cumbria, Northumberland, Tyne & Wear Primary Care Business Manager for North Yorkshire and Humber
26-28/5/16	Flyer	BDA conference (via professional contact)
6/6/16	Email/e-flyer	Rodericks Dental (corporate) Clinical Director agreed to cascade information to team

Appendix 29: Interview topic guide

Settling in

- Greeting and **thank you**
- Confirmation of informed consent, reading of participant information and respond to any remaining questions
- Reminder of the purpose of the study and the topics which will be covered in the interview
- Confirm where participant works (which practice or service)
- Reminder about obligation to follow up disclosure of unreported unprofessional issues
- Reminder about avoiding use of names during interview wherever possible, especially patients

If I haven't made myself clear about a question, or if there is a question you would prefer not to answer, please say.

Switch on recorder!

Opening topics

I'm interested in your experience of working in primary dental care, and your opinions/perspectives about your work.

Conversational enquiries regarding demographics and career (see sampling grid)

- Looking back, could you tell me about your dental career so far?
- Can you tell me about your training at dental school?
- Can you tell me about your work in primary dental care at the moment?
- Can you recall anything which influenced you to follow that career path?*

Questions

- How do you see the role (or purpose) of the practice/organisation where you work?
- How do you see your role as a [GDP/Community dentist]?

Prompts: What do you feel are your roles/responsibilities/tasks?

How does this compare with your expectations of this role?

- How do you see the role (or purpose) of community dental services/general dental practices?
- What do you see as the role of [Community dentists/GDPs]?
  Prompts: What do you see as their roles/responsibilities/tasks?

What are your expectations?

How much contact do you have with community dentists/GDPs?

Can you tell me about that? Why might that be?

- Thinking more specifically about patients who are referred within primary dental care, can you tell me about how that process/system works in your area?

Prompts: How do you feel that process works for patients?

Thinking back, how did you find out about that process/system?

How does it compare with your experiences in other places?

What sort of referrals might you make or receive?

Can you tell me about a recent example?

- What do you see as being your role (or responsibility) in referring patients/receiving referred patients within primary dental care?

Prompts: (diagnosis, treatment planning, trying treatment, consent?)

- What do you see as the role (or responsibility) of [Community dentists/GDPs]?
- Where do you see the end of one person's role/tasks and that start of the others'?

Can you tell me a bit more about that?

Thinking back to when you worked in…. (CDS/GDS/other area of England) ?

Wind down

- Your suggestions – roles, referrals
- Anything not covered, still to raise
- Suggestions – interview content and process
- What happens next – I will transcribe the interview over the next few weeks and incorporate it into the analysis. If you were to decide to withdraw, I would need you to email me within 2 weeks from today.
- A summary of the findings will be posted on the website (this will probably be completed in late 2016).
- **Thank you** and sign off

I'm aware we have been talking for a while, is it OK to continue for 10-15 minutes?

Before we finish talking…

Is there anything else you wanted to mention before I turn off the tape?

That's a good place to turn off the tape…

Appendix 30: Excerpt of coded transcript: GDP5 – 'time'

GDP5

239 GDP5: Well, that *varies* a bit, because, in most cases, I think *my*
240 responsibility should be to do an initial assessment of the patient, and,
241 and, and come up with some kind of diagnosis with what's going on
242 and what the patient needs, er, and then, there are of course
243 circumstances where not even that is achievable, I suppose, (mmm) if
244 you can't, if they bluntly refuse to go into the dental chair, or if they are,
245 for example, that anxious, or some other issues means that you can't
246 communicate with them, and they cannot sit down and open their
247 mouth, then, I suppose you will have to, even at the earlier stage, make
248 some kind of referral, or at least, find out where they can go instead .

249 R: OK. And um, thinking back to when you were working as an
250 associate, (yes) um, did you have any situations there where you, felt
251 that the patient's needs went beyond what you could offer?

252 GDP5: Oh yes, all the time, it was *hugely* frustrating, and that is one of
253 the reasons I left the National Health, (right) but the main problem, of
254 all kinds, no matter what the issue was, was lack of time, in my so. I
255 felt like if I had *only* had some more time, at least I could have *tried* to
256 manage this myself. Um, if I had a bit more time, then I'm sure I could,
257 get to *know* this patient better, and offer the service, I could spend four
258 appointments not doing any dentistry, just talking and getting them,
259 step by step into a comfortable position where, they could accept,
260 treatment, and, which is exactly what I'm now, (mmm) sometimes,
261 (mm-hmm) if necessary. And that of course, doesn't apply to *all*
262 situations where you need to refer but in *my* opinion, the vast majority,
263 when it comes to, *behaviour*, er, issues and, and *anxiety*, at least.

264 R: Right. And can you think of any particular examples from that *time*,
265 where those situations occurred?

266 GDP5: Well, we *did* refer some patients for that reason. We referred
267 young patients, children sometimes, we used to refer them quite often,
268 not only me but it was, a lot of dentists working for the same company.
269 It was very, common back then that, dentists would um, [participant
270 looked away from camera] Just a second, please (mm-hmm)
271 [participant looks outside room and comes back to camera] Sorry, I
272 was just checking that my nurse locked the door. Yeah, so, we used to
273 refer a lot of children and young people, er, for, for extractions at the
274 hospital under general anaesthetic, yeah? And my belief were that, not
275 all of them, necessarily would have needed that, if, if they had been
276 managed, in a slightly different way but, the system we were working
277 on, was quite rushed and you only had so much time for each patient,
278 and er, that's where I think, that, that, er, I, that's why I feel like I don't
279 have to, with the patients I am exposed to and the patients I *treat*, I

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415

GDP5

280 don't feel like there, there is the, er, that *need* doesn't rise as often, at
281 all, (mmm) because when you have much more time with each patient
282 to, to offer our services, you know. But back then we did refer a lot of,
283 of people to, to um, er, to [area] Hospital, and I think that, from *there*,
284 sometimes, they would end up being referred, er, to, to the community
285 dental services as well, (mm-hmm) sometimes. (Um…) And that's
286 some… Yeah, you didn't always *know* that until months down the *line*
287 when sometimes you had a letter from them saying 'oh, we've seen
288 this little *boy* now, we've done so and so and so'. (Right) Yeah, but that
289 would normally have been an *acute* referral from *me* to the hospital, for,
290 for an acute situation, and then that would lead on to, the hospital
291 would then move them on, referred them *on* to the community (mmm)
292 dental service.

293 R: And can you remember, um, what made you feel rushed, when you
294 were in that job?

295 GDP5: Well, like I said, I left the NHS, er, mostly *before* the, the, the
296 change of contract when they started with these UDAs, although I have
297 tried my hands at that when I was a locum for a short while, I've
298 worked *mainly* on the *old* system as we called it (mm-hmm) and the fee
299 per item system? And I suppose that, er, you needed to maintain
300 certain pace, in order to be an associate, in the sense that, that your
301 principal, even if we had a *reasonable* principal, there was a, there was
302 a kind of idea in everyone's head, what you should be doing every day,
303 how many people you should see, what the money turnover should be,
304 there was, there was that, and of course we were told the same, some
305 people work much faster than others, but there was always a time
306 pressure, in the sense that, er, it was much more rewarding to be doing
307 straight*forward* jobs than to do *time*-consuming advanced jobs,
308 because there was absolutely *no* way, you could put a *charge* on *time*
309 spent, (mmm) everything came in, in *fixed*, prices, (mm-hmm) and
310 there was no, er, *we* felt there, *I* felt that there was no way you could
311 negotiate any other, er, er, er, way of charging, so, in the e-, at the end
312 of the day, you felt that, you *always* felt stressed if so-, something took
313 a lot *longer* than you expected.

314 R: Mmm. And can you think of any, um, patients, or treatments which
315 you undertook which felt that they were at the *limit* of what you could,
316 *achieve* in that role?

317 GDP5: Oh, definitely, I can think of many times when you felt really
318 frustrated and you informed them that 'you would be much better off,
319 you know, having this done by a *specialist*, but unfortunately there *are*
320 no such specialists *on* the NHS available'. You would, sometimes

8

Appendix 31: Excerpt of coded transcript: CDS12 – 'inappropriate referrals'

CDS12

563 everything else has to be referred by, a *healthcare worker* of some sort
564 and it's, 90-odd per cent GDPs.

565 R: Mmm. OK. And how do you feel that process works for patients?

566 C: Um... Depends how accurately, and honestly, the form is filled in.
567 The more information that's on the *form*, the clearer you can see how,
568 *sensible* a referral it is, and assuming it *is* sensible, refer it on to the,
569 correct, *practitioner*. Um, which is why I say I've altered some of the
570 forms and I can now, I'm sending some of these *paediatric* ones back
571 and saying, 'no, this is clearly a *GA*'. The-, they send, kids for, 'thi-,
572 this child needs these six teeth extracting', well, he's *three*, (mmm) you
573 know? They might be CDS dentists but they're not going to get six
574 teeth out under *local*, (mmm) once you've done the *first* one, you're not
575 going to get the *second* one done, are you? (mm-hmm) Um, so it has,
576 I've managed to, by, basically, um, getting more information out of
577 them, I can manage to, even if it means sending the form back and
578 having it, *re-referred*, at least we've got them to the *right place*, rather
579 than sitting on a *waiting* list, (mmm) to see a CDS *dentist*, who *then*
580 has to refer them *again*, for GA *assessment*. (mmm) Because
581 obviously, if you just say it's, you know, *caries*, I'm not going to send
582 that to a consultant in paediatric dentistry. (right) Um, so we've
583 managed to cut down some of that, but it does, depend and we've, the
584 number of times I've sent the new forms out, that limit what people, you
585 know, how, how much they can get away with being a bit, *bland*, and
586 um, and getting it referred in, so at least I'm getting *accurate*
587 information. And if they're finding it a bit too difficult, all they do is, they
588 get an old *form* and send one of *them* in! [laughs] (mmm) There are,
589 um, I'm not saying this is *everybody*, by any means, this is a *minority*,
590 and a *small* minority. Um, and I know, I know, I've learnt over the
591 years, when I see different names on referral forms, this is, this is one I
592 need to read carefully, and this is one, you know, if *this* bloke's sent it
593 in, it's *clearly* a sensible *referral*, (mmm) you know, you, once you've, if
594 you've come across the practitioner long enough, you know who... If
595 somebody sends me a referral, three times a year, I can *guarantee* you,
596 they'll be, correct referrals. (mmm) It's the ones who are sending in,
597 three or four a *week*.

598 R: Mmm. And do you have much, *contact*, with general dental
599 practitioners, at all?

600 C: Um... I *do*, 'cos I'm actually, er, attend *LDC* meetings, (mmm)
601 because, you know, I'm a *dentist*, so I *can* do. Um, and I think they
602 quite like it as well, 'cos it does give them a chance to ask questions as
603 to what's going on with community dental service and their *referrals*.

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Appendix 32: Example of collating initial codes from transcripts into an initial theme

Appendix 33: Example of an initial theme and subsidiary codes

1 Motivation, purpose and career choice

1.1 Working conditions/environment – support, stable practice, patients' commitment, employment terms

1.2 Earning a living

1.3 Work-life balance

1.4 Autonomy/lack of

1.5 Influential people and experiences

1.6 Extra training

1.7 Contributing something more

1.8 Changing career direction

1.9 The future

1.9.1 Plans

1.9.2 Retirement

1.9.3 Advice to others

Appendix 34: List of refined themes and sub-themes

1. **Professionalism**
   a. Motivation
      i. Enterprise
      ii. Default
      iii. Altruism
      iv. Balance
   b. Responsibility
      i. The dentist-patient relationship
      ii. Professional responsibility
      iii. Sharing responsibility
      iv. Social responsibility
      v. Organisational responsibility
   c. Clinical autonomy
      i. Independence from the NHS
      ii. Independence from corporates
      iii. Lack of independence
   d. Allegiance to NHS
      i. Lack of allegiance
      ii. Conflicted allegiance
      iii. Implicit allegiance
      iv. Passive allegiance

2. **The Nature of Care**
   a. Holistic care
   b. Technical skill
   c. Facilitators for delivering quality care
   d. Barriers to delivering quality care

3. **Disconnection**
   a. Navigating referral pathways
      i. Trying to obtain information
      ii. Knowing the system
      iii. Knowing names and faces
   b. Coordinating patient care
      i. Communicating about patients
      ii. Shared care
      iii. Seamless pathways
      iv. Fragmented pathways
   c. Professional (dis-)engagement
      i. Professional networks
         1. Negative perceptions
         2. Professional organisations
         3. CPD courses

4. Social or informal
   - ii. Demoralisation
   - iii. Attempting to improve communication
   - iv. Dental politics

4. The Business of Dentistry
   a. The dental practice as a business
      - i. Ownership and control
      - ii. Interference from bureaucrats
   b. The influence of the NHS contract
      - i. Time is money
      - ii. Constraints and consequences
   c. Perceptions of the role of general dental practices
      - i. Practicality and pragmatism
      - ii. Gatekeeper role

5. Obscure Rules
   a. Variation in CDS organisational focus
      - i. Specialist/generalist
      - ii. Geographical variation
      - iii. Referral systems and processes
      - iv. Inappropriate referrals
   b. The impact of resource limitations
      - i. Waiting lists
      - ii. Strict referral criteria
      - iii. Deskilling and demoralisation
   c. The impact of commissioning
      - i. Alternative providers
      - ii. Takeovers
      - iii. Referral criteria
      - iv. Specialisation
      - v. Managed Clinical Networks (MCNs)
   d. Perceptions of the role of community dental services
      - i. Time and special skills
      - ii. Contested aspects of dental service provision
      - iii. Struggling and failing
      - iv. Contested position in primary dental care

6. No Man's Land
   a. Deserving and appreciative patients
   b. Difficult-routine patients
   c. People situated in No Man's Land

Appendix 35: Initial summary of findings (as provided on study web page)

Summary of Research Findings

Perceptions of Dentists' Professional Roles within Primary Dental Care

Participants

Ten general dental practitioners and twelve community dentists, working throughout England, participated in semi-structured interviews for this research. However, few participants had experience of working as associates in corporate dental practices.

Key themes

Disconnection

At grass-roots level, dentists do not communicate with each other in a spirit of cooperation, despite some attempts at a more strategic level. Although both general dental practitioners and community dentists indicate that more communication would be appreciated, they are unclear about how to make direct contact with each other. Correspondence received from both groups is often felt to be insufficient, inaccurate or impersonal.

Business

A dental practice is perceived to be a business, first and foremost. General dental practitioners tend to refer patients who need more time, because they are not cost-effective to treat under the NHS dental contract, which does not place a value on dentists' time. Some dentists, who practise entirely within the private sector, report that they rarely need to refer their patients to community dental services. They associate this with their ability to spend more time with patients, without making a financial loss, and also with the characteristics of the patients who seek out their services.

Autonomy

Dentists value their clinical autonomy very highly. Some general dental practitioners have actively avoided working in corporate dentistry, in order to maintain their autonomy; others have bought, or set up, independent dental practices. Senior, specialist community dentists describe their influential roles in developing community dental services. Some generalist community dentists are frustrated that they cannot utilise their full skill-set to benefit patients, due to commissioning constraints.

Obscure rules

Navigating community dental services can be fraught with confusion and complexity for general dental practitioners. Community dentists describe patient acceptance criteria and types of care provided by community dental services which show marked variation between services. Both general dental practitioners and community dentists are concerned that patients can experience long waits for assessment and treatment, once referred to community dental services. Community dentists value being able to deliver seamless, integrated care without having to refer patients on to other services. However, many describe recent commissioning and organisational changes which have produced fragmented patient care pathways, which involve a second referral and a further delay in receiving care.

Allegiance to NHS

Some general dental practitioners express their belief in the principles of the NHS. Often, this is at odds with their perceived ability to deliver quality care. Consequently those dentists now provide most, or all, of their care privately. Others resent, and therefore aim to avoid, the bureaucracy, constraints and interference in their practice which they associate with the NHS dental contract. For community dentists, a commitment to serving the community is implicit, through their employment within the NHS, or an NHS-funded social enterprise.

Quality care

Almost all the participants emphasise the quality of the dental care which they provide for their patients, and the value which they place on providing quality care. Whilst some dentists describe quality in terms of holistic, individually-tailored care, others focus on the technical skills and range of treatments which they can offer to their patients.

No man's land

There is a gap between the perceived roles of general dental practitioners and community dentists.   Into this gap, fall certain vulnerable patients, who are considered to be too time-consuming to be welcomed by general dental practitioners, but not sufficiently deserving to be entitled to use community dental services. Patients who are described in this way include children with extensive dental caries (decay), people who are anxious, or who struggle to cope with everyday life, and older people who have become frail.

Summary

General dental practitioners and community dentists are constrained by structural factors (contracting and commissioning), which can make it difficult for them to provide dental care for some patients. This primarily affects patients who need extra time to manage routine care and who are unable to access private dental care, due to physical or financial limitations.

Appendix 36: Characteristics of participants

| Participant number | Gender | Career stage | Training location (see note*) | Current main clinical dental role and setting | Additional current/past dental role(s) and setting(s) | | | | | |
					GDS	CDS	Secondary or tertiary setting – Clinical	Secondary or tertiary setting – Education	Research	Outside UK
GDP1	M	Late	UK	GDP: Associate in corporate mixed NHS/private practice	✓			✓	✓	
GDP2	M	Mid	UK	GDP: Associate in small independent mixed NHS/private practice	✓	✓				
GDP3	M	Early	ROW	GDP: Foundation dentist in corporate mixed NHS/private practice						✓
GDP4	M	Late	UK	GDP: Principal in small independent mixed NHS/private practice	✓					
GDP5	M	Mid	Europe	GDP: Principal in small independent private practice	✓					
GDP6	F	Mid	UK	GDP: Principal in small independent private practice	✓			✓		
GDP7	M	Late	UK	GDP: Principal in small independent private practice	✓					✓
GDP8	M	Mid	UK	GDP: Principal in large independent mixed NHS/private practice	✓		✓	✓	✓	
GDP9	M	Mid	UK	GDP: Principal in independent mixed NHS/private practice	✓					

ID	Sex	Stage	Location	Role
GDP10	F	Early	UK	GDP: Foundation dentist in corporate NHS practice
CDS1	F	Early	UK	CDS: Specialist in special care dentistry
CDS2	F	Late	UK	CDS: Specialist in special care dentistry; head of service
CDS3	F	Mid	UK	CDS: Dental Officer (generalist)
CDS4	M	Mid	ROW	CDS: Senior Dental Officer (generalist)
CDS5	F	Late	UK	CDS: Specialist in paediatric dentistry and special care dentistry; head of service
CDS6	F	Early	UK	CDS: Dental Officer (generalist)
CDS7	F	Mid	UK	CDS: Specialist in paediatric dentistry
CDS8	F	Mid	UK	CDS: Dental Officer (generalist)
CDS9	M	Mid	UK	CDS: Specialist in special care dentistry; head of service
CDS10	F	Mid	UK	CDS: Dental Officer (generalist)
CDS11	F	Late	UK	CDS: Specialist in special care dentistry
CDS12	M	Late	UK	CDS: head of service (generalist)

* Notes on training locations:

ROW indicates 'rest of world' – outside Europe/UK

GDP – work as a general dental practitioner within UK

CDS – work in a community dental service within UK

Appendix 37: Reflection on CDS3 interview

This felt like a slightly flat interview, maybe just because it was the second today and seventh overall, maybe because I felt that the responses felt like they were from a rule book. There was some personal perspective in there but not as much as for some other participants. The participant seemed relatively accepting of the rules (much like CDS 1). I noted at the end the participant said she had taken part to help someone (me) with my research, whereas other people have said they were interested in the subject.

Maybe the discussion of applying rules, returning referrals, the inevitability of complex pathways and gaps in the system, saddened me as it reflected my concerns about the potential for services to fail patients who fall in between the perceived roles of GDPs and CDS dentists. I came out of the interview feeling a little confused about exactly what this particular service was there to do, but knowing it had been explained to me during the interview. I wondered if my background in primarily rural areas meant that I don't have a very good grasp of how services are organised (and divided up) in urban areas. Those divisions seemed, to me, to increase the complexity and the potential for confusion, about where to refer patients (and why) and I could see why that service might receive referrals which they felt were inappropriate.

This participant worked in a service which had little specialist input and I sensed that its purpose differed from that of some of the more rural services. This is the first interview when understanding the social context of the patient involved needing to understand and respond to knife crime in/near schools, for example. It highlighted to me the deviation between dentistry as an income-generating business, at times responding to patients' demands as much as their needs, and dentistry as a socially embedded support service where health risk is directly related to personal circumstances such as bullying, transient lifestyles and language or literacy issues. And the fact that this is perhaps most acute in urban settings (*cf.* GDP1) and presents GDPs with a dilemma in deprived urban settings (*cf.* GDP4). I felt that CDS 3 described the role that GDP4 needed, but also described the limited communication between CDS and GDS that GDP4 mentioned as well.

At this point in data collection I have started to feel like there really is a big divide between GDS and CDS dentists and we haven't really moved all that far from Carol Mander's description of the situation in 1993, except that CDS dentists now seem to have more recognition of the financial challenges GDPs face, even if the system they work in does not. And there seems to be less flexibility in the system now, on both sides.

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Additional comments from transcribing the interview:

Laissez-faire approach – go and see own dentist if pain in evening or weekend, send referral back if patient doesn't phone to book assessment after they send a letter out. Care homes seem to be expected to keep track of when patients need check-ups. No scheduled domiciliary sessions, so they can't react to emergencies (despite suggestion that the dentist has some control over how the appointment book is planned). Seems to accept that domiciliary patients therefore have to wait longer.

Conversely, seems to feel a responsibility to enquire about the social aspects of patients' lives and to work around this.

No GA, no IV, ad-hoc domiciliary care only… Other than RA and routine care, I am left wondering what this service *does* do!

Appendix 38: Reflection on CDS9 interview

Talked of potential gap between what GDPs are willing and able to do (and whether they are equipped to fill the level 1 role within the new special care commissioning concept, or not) and what CDS services are able to do (in terms of progressive tightening up of their commissioned role, tendering of adult and child services and use of case mix as an entry criterion, and how this may become increasingly rigid). And how this might get worse as the latter progresses.

Gave a story of altruism as to why he chose this particular career path (not dislike of other paths) – see also CDS 1. I wish I had thought to ask this specific question from the beginning as it would have helped to elicit people's motivation(s) and priorities more clearly.

I am beginning to feel that (and it may just be my interpretation because of my perspective) my questions make more sense to community dentists, especially experienced ones, than to (some) GDPs, especially those who work (solely) in private practice. This is perhaps not surprising but must say something about how I view this issue and to whom else it matters, and does not matter. When I read the special care commissioning guidelines, I had been thinking about the issue of the level 1 being reliant upon the engagement of GDPs and how my interviews with GDPs were suggesting that, whilst one or two (GDP2, for example) seemed to welcome a contract which would enable them to deliver the care they were capable of, within the GDS system, the others did not seem to see that extended caring role as being part of their GDS role. It felt like my existing thoughts were being echoed by CDS9.

Appendix 39: Returning to personal reflexivity

The process of collecting, transcribing and analysing my research data required me to think about how I felt as I experienced each stage and event. I recorded my thoughts as reflective notes after each interview, adding further reflective memos as I became more familiar with the data through transcription and analysis. Two examples of my reflective notes are provided in Appendices 37 and 38. I was aware that my feelings during, and about, each interview, varied. The depth of the interviews allowed participants to share their professional lives, priorities and decisions with me in a way that I had hoped they might, but which was, at the same time, unexpected. I was relieved that my interviewing skills and topic guide were usually sufficient to elicit such extensive responses, and grateful that participants appeared willing to share their thoughts. I remained conscious that participants' apparent openness should not be regarded as honesty, in that communications are no more than social constructions of the meanings and perceptions people are willing to convey to others. Furthermore, participants were aware that these were not private conversations, but recorded interviews with a researcher who was also a community dentist.

I noticed that I found myself identifying with some participants more than others, despite differences of age, gender or professional background in several instances.   Some accounts were inspirational, whilst others left me feeling demoralised on behalf of the participants and their patients. Occasionally, I felt unease or distaste at the story being shared with me. During the interviews, I tried to keep such positive or negative thoughts in check, to avoid my first impressions leading me to give some participants more time or prompts to elaborate, than I did for others. This turned out to be an important step, as I found that I learned as much from participants to whom I found it more difficult to relate, as I did from participants whose stories I recognised, not least because those interviews demanded of me further self-reflection. I discussed one of the interviews at length with a supervisor, and this enabled me to acknowledge that my unease probably stemmed from the distinct differences in priorities and, probably, values, which I perceived to exist between myself and the participant. By the time that I had completed transcription of the interviews, and I had spent several months working on the analysis, I had concluded that the values which underpinned participants' descriptions of their roles, and others' roles, were not necessarily contained solely within either the GDP or the community dentist role, as I had previously assumed, but could, in some cases, be transferable between these two roles.

Appendix 40: Developing a disciplinary reflexivity

At the outset of this research project, as a dentist becoming a researcher, I felt that my personal objective was to establish what we, as a dental profession, were trying to achieve. During the analysis, by this time reflecting as a researcher who was no longer practising clinical dentistry, I looked back at my research aim and objectives and began to realise that my aim derived not only from my wish to ensure that patients were well-served by primary dental care, but also from my need to work out what I, personally, had been doing for patients in primary dental care, and why. That is, as a dentist, I had long experienced a sense that what I was doing in my clinical role in primary dental care was, in some way, not the 'authentic' dentistry I had expected to be doing when I was a dental student, although it felt legitimate and purposeful to me. The viewpoint expressed by several participants was fairly consistent with my original understanding of the 'authentic' professional role, prompting me to further question my own legitimacy as a dentist. Conversely, my experience of interviewing other participants about their perceptions of their own role allowed me to recognise that some other dentists shared a perspective which was similar to my own. I found this reassuring, as it supported the idea that my own (clinical) role perception could be legitimate as well. Applying the typology of primary care dentists which I had created from the data, I found that I identified myself as a Pragmatic Carer. As a researcher, acknowledging the diversity of participants' perceptions also enabled me to consider that there might be multiple authentic professional roles for both GDPs and community dentists, within primary dental care.

I started to realise that dentists' values and motivations underpinned their constructions of their professional roles, and that these differed markedly across the participant group. This realisation led me, in my interpretation of the data, to critique conventional professional perspectives of dentists' roles within primary dental care. Specifically, I considered the association of technical skills with autonomy and independence, in comparison to relational skills, which appeared to be associated with care, collaboration and compromise. These issues are elaborated in Sections 6.4.7 and 6.5.