

2020

Deconstructing, contextualising and assessing management and leadership qualities in dental professionals: an ethnographic study of principles in practice

Hanks, Sally

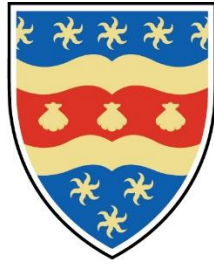
<http://hdl.handle.net/10026.1/15776>

<http://dx.doi.org/10.24382/902>

University of Plymouth

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UNIVERSITY OF PLYMOUTH

**DECONSTRUCTING, CONTEXTUALISING AND ASSESSING MANAGEMENT AND LEADERSHIP
QUALITIES IN DENTAL PROFESSIONALS: AN ETHNOGRAPHIC STUDY OF PRINCIPLES IN
PRACTICE**

By

SALLY JANE HANKS

A thesis submitted to the University of Plymouth
in partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

Peninsula Dental School

May 2020

Acknowledgements

Thanks must first go to the dentists and staff in the practices who agreed to participate in this research. Without them there would be no study and they have enabled the dentist's voice to be central in the pursuit of knowledge for the profession. Thank you too for the extremely warm welcome I received in every practice by every person; it was a pleasure to work with you all.

To my supervisory team, survivors from the beginning, and later arrivals: Professor Debby Cotton, Dr Sam Regan de Bere and Dr Lucy Spowart. You offered unwavering support and straightforward, constructive feedback through multiple rounds of data analysis and iterations of chapters. You bolstered me when I felt disheartened. It was not always a straightforward trajectory and I have the greatest admiration and respect for each of you. I have learned so much from you all and feel immensely fortunate to have had the privilege of working alongside you over the course of my PhD journey.

To the Association of Dental Education in Europe (ADEE) for a 40th Anniversary Scholarship Award in support of this work.

Thanks to the Head of Peninsula Dental School Professor Chris Tredwin who advised me to "*pick up my machete and get on with it*" when times were tough and there were not enough hours in the day. The work would not be what it is without your support.

Acknowledgements

To friends and colleagues who have shared in my triumphs and sympathised with my tragedies, and at the end, have proof read my work, championed my cause and encouraged me to keep going ever onward to reach goals that I never thought possible. Particular acknowledgement goes to Professor Hilary Neve and Dr Tom Gale for the opportunity for scholarly collaborations and partnerships that have supported and enhanced this study

To my family. To Alastair who lost a dining room and five years' worth of weekends to piles of paper; late night stints at the computer; and an empty fridge. Thank goodness you can shop, cook and make a great cup of tea! I am grateful for all the times I have been immersed in this thesis and you have quietly appeared with a full cup in your hand – thank you.

To Mum for her proof reading skills and 'robust' comments on my writing as well as not criticising that I have been a bit absent for the last couple of years – I hope it will be worth it in the end.

And to my nieces who questioned why I would choose to sit inside and work when it was half term and the sun was out; and who provided some reality when asking "*Is a PhD a bit like SATS?*" Thank you for keeping life in perspective and linked to what really matters in the end.

Author's Declaration.

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award without prior agreement of the Doctoral College Quality Sub-Committee.

Work submitted for this research degree at the University of Plymouth has not formed part of any other degree either at the University of Plymouth or at another establishment.

The study was not sponsored by a studentship and not carried out as any part of a collaborative project. The contribution is entirely the author's.

A programme of advanced study was undertaken which included:

- University of Plymouth Doctoral Students in Education: research, methods and stories. November 2013 – June 2014
- MSc module (10 credits, level 7) Social Research and Business: Applying Techniques of Qualitative Data Analysis. 2014.
- Good Clinical Practice Course and Update 2012 & 2014

Outputs stemming from this research:

- Neve H, Hanks S. (2016) "When I say..... Capability". Medical Education 50: 610-611

Author's Declaration

- Hanks, S. (2017) Leadership, Management and Dentists – A Systematic Narrative Review. BSODR, 6th-8th September 2017, Plymouth

Word count of body of main thesis: 71,997

A handwritten signature in black ink, appearing to read 'S. Hanks', is positioned above the 'Signed:' label.

Signed:

Date:

20th October 2019

Abstract.

This study acknowledges the requirement for leadership in dental training and professional standards to improve patient safety, the quality of care and the shaping of culture. Leadership development requires authentic learning outcomes whose meaning and related constructs of leadership are fully understood. The literature is missing empirical studies at operational level; this study addresses that gap.

The innovative blended methodology, embedding case study, recording and observation of dentists, and use of the think aloud technique optimised the co-construction of knowledge via the zones of maximum complexity in Video Reflexive Ethnography (VRE) and proximal development in Activity Theory. This bottom-up, context sensitive approach enabled discovery of three activity systems with associated outcomes: patient care, running the surgery, and running the practice. Further analysis of their integrated, combined outcome supported identification of six metacognitive, higher-order concepts that underpin leadership in dental practice: Organisational level, Community of Practice, Personal Position or Context (dentist as individual, clinician and business person), Identity (personal and professional), Relationships, 'Capability and Flexibility'. Concepts and their relationships informed the final conceptual framework thus clarifying the fundamental tenets of dentists' leadership. High levels of emotional intelligence, professional identity formation, stress management, and effective dentist-nurse relationships are pre-requisite. Differences between principal and associate roles, challenges of working in a Dental Body Corporate, and internal conflict between the various personal positions of the dentist were noted. These areas

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are explored and deliberated, alongside challenges in, and opportunities for, addressing them.

The framework aligns with contemporary concepts and approaches to leadership, while not being limited or constrained to a single theory, model or definition. Its use emphasises the oversimplification of outdated approaches through facilitating understanding of leadership while retaining and embedding its complexity. The framework can be applied across all leadership levels and to multiple stakeholders, including dentists, to develop regulatory, education and operational activities.

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Introduction

Outlining the links between leadership, dentists and education.

“Leadership is a fluid, dynamic, socially constructed and mediated concept; its meaning therefore changes over time and between cultures”

(McKimm & O' Sullivan, 2016 p896)

I.1 Background to thesis.

The links between leadership, dentists, their education and the reasons to explore them may not be obvious. This introduction will consist of two sections: the first providing a background understanding of leadership regulation and training relating to dentistry; and the second to situate that background into the specific context of this study. The aim of this combined introduction is to give the reader a foundation of awareness on which to build and expand to help make sense of the theoretical, philosophical and empirical processes and endeavours of this study. It illustrates how the various elements work together to support and scaffold this work in developing outcomes and understandings.

I.2 The regulation and education of leadership in healthcare.

Leadership is espoused as one of the major influences on patient safety, quality of clinical care and the shaping of healthcare culture within in our society (FMLM, 2016; NHS, 2016; West *et al.*, 2015). A number of high profile cases in the early part of the

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decade investigating inadequate patient care included the Mid Staffs enquiry¹ and associated Francis and subsequent Berwick reports in 2013; and the Department of Health report on the Winterbourne View² scandal in 2012. These reports highlighted failings in leaders and leadership. This led to an upsurge in focus on leadership in healthcare policy and guidance (King's Fund, 2012; King's Fund, 2014; West *et al.*, 2014) and to the NHS developing its own leadership academy³. Within these publications leadership is viewed across the wider remit of healthcare provision, often from a secondary care hospital perspective and a political as opposed to a clinical level of leadership. Consequently, much of the work does not distinguish between specific individual healthcare contexts and considers dentistry, medicine and nursing with other allied health care professionals in the same way and on the same terms. The context of the primary care general dental practitioner working in independently owned dental practice and charging money for services at the point of delivery, adds a specific complexity that may not be relevant to other healthcare professionals. Such complexity may not be taken into account within existing governance. The definition of leadership quoted at the opening of this chapter by McKimm & O'Sullivan (2016) describing its nature as fluid, dynamic and socially constructed, highlights why such context is imperative to understanding of the phenomenon, and how it is operationalised.

¹ <https://www.gov.uk/government/publications/report-of-the-mid-staffordshire-nhs-foundation-trust-public-inquiry>

² <https://www.gov.uk/government/publications/winterbourne-view-hospital-department-of-health-review-and-response>

³ <https://www.leadershipacademy.nhs.uk/about/>

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The NHS leadership framework (NHS improvement 2016) provides a range of areas that each individual working within healthcare is expected to apply for themselves in their own context. Within it, however, leadership is still conceived as an entity in its own right, divorced from context or social construction, and based on political agendas and reports. Consequently, the areas covered may or may not be feasible for all clinicians in all contexts to relate easily to their individual work.

This increased focus on leadership inevitably impacted regulators. The Care Quality Commission (CQC) (the independent regulator of health and social care organisations in England) began to give leadership a more prominent and high profile role in their inspections of health and social care services. One of the five key lines of enquiry the CQC investigates across all services inspected is how well led the organisation is (CQC, 2018). Inspectors are provided with a toolkit for 'enquiry, prompts and ratings' against this line of enquiry, which contains multiple checkpoints purportedly related to effective leadership. They define well led as being when; *"the leadership, management and governance of the organisation assures the delivery of high-quality and person-centred care, supports learning and innovation, and promotes an open and fair culture"* (CQC 2018 p20).

Other healthcare regulators were also prompted to place a new emphasis on leadership; for training as well as ongoing regulation. 'Outcomes for Graduates' published by the General Medical Council (GMC) (GMC, 2018), defines the curricula for all UK medical schools and undergraduate medical students. It contains an entire section on leadership and teamworking under one of its three domains: 'professional

values and behaviours'. Leadership contains nine individual outcomes including the following:

“to describe theoretical models of leadership and management that may be applied to practice” and “to undertake various team roles including, where appropriate, demonstrating leadership and the ability to accept and support leadership by others” (GMC, 2018 p13).

These outcomes acknowledge the socially constructed nature of leadership through the highlighting of followership (Uhl-Bien *et al.*, 2014) or supporting leadership by others. It does not however, debate or take note of different 'others' and describing models of leadership, does not identify which may be more or less useful nor address or consider how they may be applied in any given context.

The Nursing and Midwifery Council (NMC) include leadership outcomes for students eligible to register with them on graduation. Outcome 5.1 for example, states future registrants must *“understand the principles of effective leadership, management, group and organisational dynamics and culture and apply these to team working and decision-making” (NMC, 2019 p20).* Although these outcomes appear to be practical and applied the socially constructed element is again missing as no mention is made of various contexts that may impact the principles themselves or the understanding of such principles. Neither are the various team working and decision making contexts in which the principles are to be applied alluded to.

The Faculty of Medical Leadership and Management (FMLM) have published an 'indicative undergraduate curriculum' (FMLM 2018) which contains an entire

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framework of five competency areas containing 48 specific competencies to support medical schools in increasing and enhancing medical leadership and management training. This document again does not define leadership, nor acknowledge the importance of context in the dynamic construction of leadership within it.

Accordingly, over the last decade across healthcare education and regulation, leadership has become an important domain of learning. However, across all these documents and regulatory standards, none provides a single accepted definition, theoretical model, aim or concept of leadership, nor operationalisation in any given context on which to base educational interventions. The FMLM suggest their competencies are based on an F1 doctor; while the CQC do link their leadership enquiry to *“clear priorities for ensuring sustainable, compassionate, inclusive and effective leadership...”* (CQC, 2019 p26) thus implying links to context, theories or models. The CQC, however, regulate the whole remit of health and social care, whether or not each of those models applies to all or only some of the settings, is not reported.

In the next section, attention will be turned to dentistry more specifically.

I.3 The regulation and education of leadership in dentistry.

The General Dental Council (GDC) is the body who registers and regulates all dentists and dental professionals in the UK. It sets out legally binding standards of practice,

“If you do not meet these standards, you may be removed from our register and not be able to work as a dental professional” (GDC, 2013).

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The May 2019 'registrant report' (available on the GDC website⁴) stated there are 112,706 total registrants, of which 41,597 are dentists and the remaining 71,609 dental care professionals (dental therapists, hygienists, nurses and technicians). Ongoing monitoring and quality assurance of these registrants requires complex, yet transparent and defensible, assessment processes. These need to be feasible and achievable, and ensure the safety of patients who visit the practitioners they relate to. It is a requirement of the GDC that "*management and leadership should be embedded in training from the outset of their [dental registrants'] career*" (GDC, 2015 p12) and they define management and leadership as "*the skills and knowledge required to work effectively as a dental team, manage their own time and resources and contribute to professional practices*" (p6). This is a very different level of definition of leadership to the one quoted at the beginning of this chapter. Leadership in the 'dental team' setting then, is reported as a combined set of operationalised skills and knowledge. What the skills and knowledge required might be, however, or how they may differ between various teams and contexts, is not given further consideration.

Education for dentists consists of a five year undergraduate training programme and successful completion of a level 7⁵ degree to be awarded a Bachelor of Dental Surgery (BDS). Each of these programmes has to be individually and specifically approved and awarded sufficiency by the GDC for its graduates to be eligible for registration. Training for all other members of the dental team is more varied and spread across the remit of Higher and Further Education and Apprenticeships. All

⁴ GDC May 2019 registration report <https://www.gdc-uk.org/api/files/Registration%20report%20-%20May%202019.pdf>

⁵ <https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf> p17

training programmes are regulated by the GDC so for the remit of this study the focus will be limited to dentists and dental students.

The GDC have published standards encompassing undergraduate pre-registration and post registrant domains: 'Preparing for Practice: Dental team learning outcomes for registration' (GDC, 2015) and 'Standards for the Dental Team' (2013). Preparing for Practice contains leadership and management as one of four overarching domains and it states that, "*good management and leadership skills are vital to effective delivery of high quality patient care*" (p12). It contains 23 learning outcomes within that domain under the headings, managing self; managing and working with others; and managing the clinical and working environment. The post-regulatory guidance that applies to all registrants, 'Standards for the Dental Team' (GDC, 2013), contains 11 additional outcomes related to leadership and management. Once graduated, all dentists must undertake a Dental Foundation Training (DFT) year if they wish to work in any sector of the NHS in future. This DFT year embeds clinical and educational supervision, and the UK Committee of Postgraduate Dental Deans and Directors (COPDEND) publish a DFT Curriculum (COPDEND, 2016) containing four domains; one of which is entitled 'communication, teamworking and leadership'. On top of all these UK regulatory frameworks, the Association of Dental Education in Europe (ADEE) has developed European outcomes expected of a graduating clinician (Field *et al.*, 2017). These also contain various outcomes under management and leadership, in domain 2: safe and effective clinical practice (Field *et al.*, 2017). Here then, leadership is explicitly limited to safe and effective clinical practice.

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Across all these documents numerous outcomes are set at various levels of learning from recognise and describe to demonstrate, critique and analyse (Krathwohl, 2002). There is no common thread or guiding principle that seems to link them, and nothing to demonstrate how they might align with generic healthcare or NHS guidance and policy. For example, Preparing for Practice (2015) states that upon registration with the GDC the registrant will be able to, 12.5 *“Recognise and comply with national and local clinical governance and health and safety requirements”*; 11.4 *“Where appropriate lead, manage and take professional responsibility for the actions of colleagues and other members of the team involved in patient care”*; and 10.4 *“recognise the significance of their own management and leadership role and the range of skills and knowledge required to do this effectively”*. COPDEND’s DFT Curriculum (2016) is less directive in the level of competence required and expect the successful graduate to know, *“the importance of leadership. The difference between management and leadership. The different styles of leadership”* (p35).

Dentistry has clearly embraced the focus on leadership in line with healthcare in general, but as in healthcare, there is no agreed definition, concept or aim nor evidence or suggestions as to how leadership may be operationalised in those settings. Some of these numerous and ambiguous outcomes will be revisited later in the thesis in light of the developed framework, to demonstrate how educators may be supported in using them in a meaningful and authentic way for education.

I.4 Linking regulation and governance with the philosophy of ideology for dentists in dental practice.

‘Intellectual ideology’ is described by Billig (1988, p27) as the inevitable, common sense or natural set of ideas that rule or govern a section of society. It is the view of what things **should** be like in an ideal world; the intellectually derived theoretical concept of how something is. Intellectual ideology is normally assumed to be “*consistent, integrated and coherent*” (Billig, 1988 p28) by the ruling or dominating bodies of society or culture. In dentistry the dominant discourse and intellectual ideology comes from the GDC as the regulatory body. The intellectual ideology of management and leadership in dentistry, as understood by the GDC, is what currently forms the foundation, on which are built the learning outcomes, professional guidance and legal standards. At this time it is not known how, or if, this ideology relates to the real life practice of a dentist. Billig argues that in reality, the ‘common sense’ or ‘way of life’ of a culture is frequently in contrast to its intellectual ideology, being “*inconsistent, fragmented and contradictory*” (Billig, 1988 p31). This is its ‘lived ideology’. The lived ideology of the general dental practitioner (GDP) needs to be considered in relation to the current GDC intellectual ideology of leadership.

The multifaceted nature of clinical work has shown that the individuals engaging in it influence and manipulate the accepted everyday practices and procedures via complex behaviours, processes, theories and activities (Hostgaard & Bertelsen, 2012). These dynamic and reciprocal interactions enable individuals to influence and modify a situation just as the situation influences and impacts them. Such situated interactions create complex and intricate work behaviours. These interactions are embedded

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within the clinician as well as in the social, historical and cultural context of their individual clinical practice. These situated interactions generate an accepted norm, or version of behaviour, within that environment, for that clinician.

As clinicians carry out their (often tacit) work practices, they have to resolve competing tensions between multiple and often conflicting or contradictory priorities and requirements. They may have to balance actions and behaviours in response to policies and guidelines, financial constraints, patient demands, their own emotional responses or clinical need (Iedema, 2011; Iedema *et al.*, 2006; Nicolson *et al.*, 2011). For example, treatment may need to be changed to fit in with a patient's financial or transport constraints, or in response to an unexpected physical or emotional reaction to treatment. Where family members attend a dental appointment together and one child immediately follows the other into the dental chair, the strict cross infection control guidelines still need to be adhered to, meaning that individual clinicians need to be responsive and adaptable to the situation. Thus a 'best practice' task does not always produce the same or expected results (Iedema *et al.*, 2009).

Since an individual's experience and activity is dependent on the specific context in which it takes place, their activities and situation cannot be separated from one another (Forsyth *et al.*, 2009). This reinforces Iedema's (2011) statement that, "*standardisation cannot cater for all possible circumstances and risks*" (p83). Commonly, however, best practice protocols, standards and guidelines (such as for cross infection control as described above) are expected to be integrated into everyday clinical practice in a standardised way, regardless of any practical or

emotional constraints. The resulting challenge for the clinician has been labelled 'articulation work' (Iedema, 2011 p83).

A practitioner may also have to spontaneously discuss, redesign or evaluate their situated interactions in face to face communications, while also dealing with others' (e.g. patients, colleagues, system representatives') views, feelings or emotions. This is labelled 'immaterial labour' (Iedema *et al.*, 2006 p158) and may be especially relevant in a dental environment where patients can be extremely anxious or fearful and respond unpredictably.

Lived ideology then, is created through the integration of intellectual ideology with such articulation work and immaterial labour. It is not theorised by intellectuals from a distance, but is observed 'on the ground', in context, where activity occurs. Its contrary and messy nature helps make sense of complex social interactions. It gives rise to 'ideological dilemmas' (Billig, 1988 p32), which, when identified, examined and debated, can lead to a rich and diverse understanding about the multifaceted social interactions that create culture and practice. Ideological dilemmas are ostensibly the existence of multiple meanings, contrasting attitudes, behaviours or values that are equally applicable within any one social group or situation. For example, the phrases 'many hands make light work' and 'too many cooks spoil the broth' while appearing contradictory are both accepted metaphorical stances that may be relevant to an individual when undertaking a task.

At this stage we do not have sufficient information to understand whether or how the GDC and other leadership criteria relate to the lived ideology of dentists in practice. Such consideration will enable research and professional communities to gain

a deeper understanding of if, and/or how, leadership practiced in these environments links to such regulator standards and training or quality assurance outcomes for our clinicians (Brocklehurst *et al.*, 2013).

Discovering such a lived ideology of management and leadership in the dental setting will therefore add to the intellectual ideology theorised currently in political and governance guidance and regulations, and provide the essential context that is currently missing. It will also support the development of learning outcomes and assessment constructs on which to base educational activities. The value of these are considered in the following section.

I.5 Leadership assessment constructs and learning outcomes for dental education.

It is the legal duty of training institutions and education providers to assess their students and clinicians against criteria within the different management and leadership domains. There is a plethora of evidence within pedagogic, medical education and the wider literature describing fundamental principles of teaching, learning and assessment strategies (Cumming & Maxwell, 1999; Frank *et al.*, 2020; Holmboe *et al.*, 2010; Swaffield, 2011; Van Der Vleuten & Schuwirth, 2005). All attest that in order to ensure validity, reliability, feasibility, impact on learning (Schoonheim-Klein *et al.*, 2006) and/or authenticity, the ‘construct’ being considered needs to be fully determined and understood (Fook & Sidhu, 2010) and “*solid scientific evidence of their [the constructs’] meaning*” is also required (Downing, 2003 p830).

Validity (Kane *et al.*, 1999) relates to the meaning placed on a test’s performance and scores, rather than on the test itself. That is, to what extent the scores provide an accurate representation of what is being assessed. The constructs being reflected in

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those scores, therefore, need to be fully and thoroughly developed to ensure relationships and/or comparisons can be established and differentiated between. This comparison should be enabled for the same constructs within or across various assessments and between different constructs within the same assessment (Downing 2003).

Such constructs in assessment are defined as; *“an ability (or set of abilities) that will be reflected via test performance, and about which inferences can be made on the basis of test scores”* (Shaw *et al.*, 2012 p161). Well-designed criteria that meaningfully reflect the construct being assessed need to be developed to enhance validity and authenticity of assessment. Learning outcomes for teaching and learning sessions can also be aligned to these constructs, and mirror the assessment criteria, to enhance the relationship between teaching, learning and assessment, and support the process of ‘constructive alignment’ (Biggs & Tang, 2011).

The importance of defining such individual learning outcomes and assessment criteria to support education is widely accepted. To facilitate this the overarching constructs **in addition to** the theoretical notions that form their basis must be fully and clearly understood (Schuwirth & Van Der Vleuten, 2012).

Learning outcomes can be used to define what things students should be able to achieve or gain from an educational intervention. These can be wide ranging or very specific, and can be set at a range of cognitive levels. Bloom’s taxonomy (Bloom 1953) is a well-known approach for considering learning outcomes in the cognitive domain from simple recall to metacognitive learning. This is a framework that maps cognitive area of knowledge of a clinician (affective or technical skills are considered separately)

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and can assist in mapping learning outcomes to the levels of cognitive ability necessary to achieve them. Originally developed as a one dimensional 6 tier pyramid with increasing depth of learning from base to tip, additional frameworks relating to the psychomotor and affective domains have been added (McKimm & Swanwick, 2009). The original taxonomy of the cognitive domain has been reimagined over the years, firstly to a new one dimensional hierarchy with tiers refined in order and nomenclature (see figure I.1) and later to a two dimensional matrix (figure I.2) involving the pyramid's newly labelled cognitive levels and additional associated domains of knowledge.

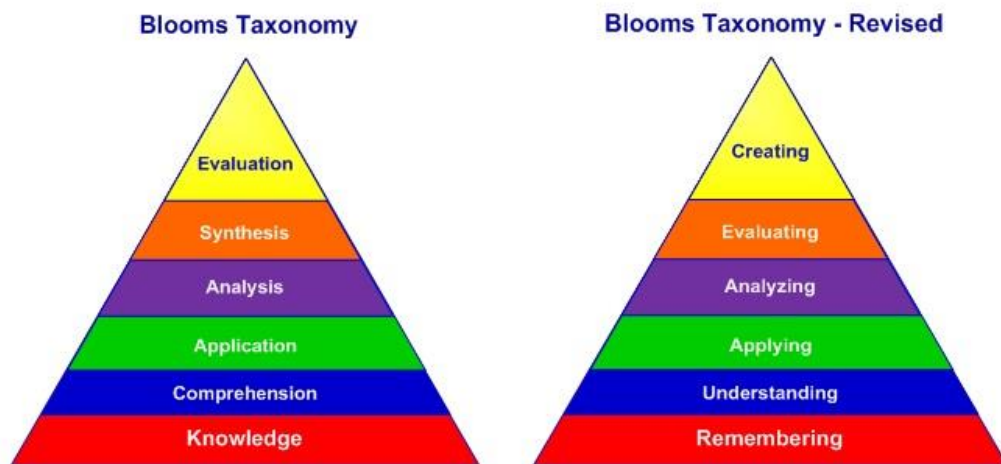


Figure I.1 Depicting Bloom's original taxonomy and the later revised version by Anderson (Anderson *et al.*, 2001)

Through changing Bloom's original nouns to verbs, and by swapping the top two tiers around, the later taxonomy depicted learning as a more active process. It enabled the use of verbs in learning outcomes to define better what students or learners should be able to do across the different cognitive levels.

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The grid involves a horizontal (x) axis showing the cognitive levels of learning that generally increase in complexity (but which may show some overlap); and four domains of knowledge along a vertical (y) axis that show increasing complexity from factual to metacognitive knowledge (Krathwohl, 2002; Anderson *et al.*, 2001). Learning outcomes can be written to contain specific verbs that correspond to different levels or domains within either of the frameworks, and can also be mapped against the frameworks for individual session or wider curriculum purposes.

		Cognitive levels of learning					
		Remember (remember/ recall/ recognise)	Understand (interpret/ give examples of/ classify/ summarise/ infer/ compare/ explain)	Apply (execute/ implement)	Analyse (differentiate/ organise/ attribute)	Evaluate (check/ critique)	Create (generate/ plan/ produce)
Domains of knowledge	Factual Knowledge of terminology, specific details & elements						
	Conceptual Classification & categories, principles & generalisation, theories, models & structures						
	Procedural Subject specific skills & algorithms, techniques & methods, criteria to determine when to use appropriate procedures						
	Metacognitive Strategic, cognitive tasks, self-knowledge						

Figure 1.2 Depicting the 2 dimensional framework based on Anderson and Krathwohl’s revisions of Bloom’s original taxonomy (Krathwohl, 2002; Anderson *et al.*, 2001).

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Competency and outcomes based assessment is well established within medical and dental education literature (Frank *et al.*, 2010; Holmboe *et al.*, 2010; Wass *et al.*, 2001). There are critiques, however, which suggest that such an approach is too oversimplified, and not effective in supporting professional graduates to be 'prepared for practice' or ready to inhabit the lived ideology they are about to encounter (Fraser & Greenhalgh, 2001; Illing *et al.*, 2013; O'Connell *et al.*, 2014). Such assessment literature aligns with work in the field of management and leadership, all of which suggests that competencies are only part of the picture (Alban-Metcalfe & Alimo-Metcalfe, 2013; Alban-Metcalfe & Alimo-Metcalfe, 2009; Bolden & Gosling, 2006; Rethans *et al.*, 2002; Van Der Vleuten & Schuwirth, 2005; van der Vleuten *et al.*, 2010). There is agreement that neither simply possessing certain personal qualities or traits, nor being able to achieve a set sum of competencies is sufficient to mark a person as effective in whatever it is they are trying to achieve. The literature on capability (Fraser & Greenhalgh, 2001; Neve & Hanks, 2016; O'Connell *et al.*, 2014) seeks to address such critique, where capability is defined as the ability to integrate multiple competencies, personal qualities and skills to successfully perform a role. Assessment of complex constructs will undoubtedly be required, and this may necessitate the use of simpler, more discrete competencies, which should be viewed as an integrated element of the whole. Competence is therefore an essential underlying component of capability (Hanks & Neve, 2016; Neve & Hanks, 2016) but developing such competencies is a challenging task and again depends on the overarching construct being clearly defined, explored and understood.

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Management and leadership, like clinical practice, are complex fields of theory and behaviours (Yukl, 1989; Yukl, 2012; Yukl *et al.*, 2002) and within this dual complexity, practitioners may have difficulty cognitively explaining their world outside of its context. They may therefore find it challenging to clarify the lived ideology to develop meaningful assessment constructs, criteria and learning outcomes. Hostgaard & Bertelsen (2012 p379) explain; *“when work practices become routine, they slip to the background of the conscious awareness and may be difficult to recognise without having the context to support recall”*. Additionally, leadership has been variously defined as *“traits, behaviors, influence, interaction patterns, role relationships, and occupation of an administrative position”* (Yukl, 2013 p24), which adds to the challenge for educators. The assessment constructs of management and leadership within such clinical practice are therefore likely to be complex and multifaceted. As previously discussed, they therefore need to be understood fully and thoroughly, and explored to enable development of appropriate learning outcomes, authentic assessment criteria and/or underpinning competencies. Assessment strategies that link and situate individual assessment methods within them, need to be authentic and purposeful in order to confirm that education for capability has been achieved and is relevant for the future practitioner (Amin, 2012; Cumming & Maxwell, 1999; Swaffield, 2011).

Authentic constructs, learning outcomes and assessment criteria may not encompass the entirety of appropriate education activities relevant to the complex nature of clinical practice and leadership. These will necessitate equally complex non-linear educational approaches that include cognitive, affective and metacognitive strategies. The constructivist nature of learning in medical education also contests that

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learners need to participate and be situated in the context they are training for and gain real experience on which to reflect and grow. While having a solid understanding of the constructs being educated for is still vital; how the learner relates to them and makes meaning from and of them personally needs also to be considered.

Elements of experiential and situated learning along with individual and collective opportunities for reflection and personal-development should therefore be incorporated into programmes and training schedules (Kolb, 1984; Lave & Wenger, 1991; Mann *et al.*, 2009; Schön, 2007; Yardley *et al.*, 2012). There are numerous specific methods for incorporating these self-development, socio-cultural, socio-cognitive and metacognitive approaches into education. These may include, optimising feedback; providing opportunities to build trusted relationships with educators or mentors; guided reflection with supportive challenge, such as coaching and mentoring; and assessment for learning, formative, work based assessment approaches set within a programmatic assessment strategy (Ben-Yehuda, 2015; Davies, 2005; Hodges *et al.*, 2011; Nicol & Macfarlane-Dick, 2006; Norcini, 2003; Ray, 2017; Sandars, 2009; Schuwirth & Van Der Vleuten, 2011; Schuwirth & Van Der Vleuten, 2012; Yardley *et al.*, 2012).

Exploring the 'whats', the 'hows' and the 'whys' of management and leadership in dentists and making explicit their roles, responsibilities and day-to-day operational activities within the practice environment will enable more effective resource development for the support of such authentic education. Context specific empirical data will better inform the education and regulation of leadership more readily than distant or out of context theoretical knowledge based on intellectual ideology.

I.6 Identifying and developing relevant and authentic constructs of leadership for dentists.

By identifying and exploring the articulation work, immaterial labour and day to day operational activities of dentists, insights can be revealed into the complex and currently poorly understood area of management and leadership. Understanding and explanation of the prerequisites or competencies necessary for it to be effective in a given situation, will in turn facilitate meaningful and authentic assessment constructs and competencies to be developed. These can verify it is being successfully achieved, and highlight when it is not. Yukl (2013) recommends a direct observational approach to study leadership in its context. There remains, however, a *“great challenge to explore complex and tacit work practices using traditional ethnographic research methods* (Hostgaard & Bertelsen, 2012 p378) as observation alone may not detect, or have access to such personal and internally influenced practices. As the articulation work and immaterial labour of each dentist is unique to them, and they create their own unique context dependant reality, it is fundamental that their viewpoint is also taken into account.

The social, technical and individual elements as well as the more involved multi-factorial processes that influence and connect the dentist with the situation need to be included. The question then arises as to how such identification and exploration might be achieved for such a complex phenomenon situated within the equally complex clinical practice of dentistry to facilitate such understanding.

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The link between leadership, dentists in dental practice, and education has now been established. The next section will consider its relevance in relation to this specific study in facilitating understanding of this complex phenomenon.

I.7 Study aims, research paradigm and underpinning philosophical considerations.

The overall intention of this study is to describe, interpret and explain the phenomenon of 'management and leadership' for dentists working in primary care practice. This information then informs the design of a conceptual framework for the leadership education of dentists in that setting.

I.7.1 Ontology – subtle realism.

This study adopts the accepted and pragmatic stance of 'subtle realism' (Banfield, 2004; Hammersley & Atkinson, 2007). 'Subtle realism' or 'consensual notion' sits between the opposite poles of realism (that what we know exists independently) and relativism (that what we know cannot exist independently) and is described as a "*belief in which people can have reasonable confidence*" (Hammersley & Atkinson, 2007 p50). This has also been referred to as common sense logic.

It is recognised that reality (equivalent to Billig's 'lived ideology') is dependent on specific contexts, situations and the interactions of individuals within those situations, so that "*absolute reality can never be understood and may only be approximated*" (Duncan & Nicol, 2004 p453). To permit any kind of research or study, however, a pragmatic acceptance of the consensual notion of management and leadership is needed. Hammersley & Atkinson (2007) reported that: "*we can work with what we currently take to be knowledge, while recognizing that it may be erroneous; and engaging in systematic inquiry we can still make the reasonable assumption that we*

are able to describe phenomena as they are, and not merely how we perceive them or how we would like them to be” (p16). Subtle realism enables the exploration of leadership in dental practice while acknowledging that it only exists in relation to that time in that situation for that dentist.

The idea of common sense logic or subtle realism may present ideological dilemmas in qualitative research if findings suggest contradictory meanings to a generally accepted idea, or dominant discourse. These may then be unpopular or others may be unwilling to accept them. As previously stated the findings of this study will complement and add to the existing literatures relating to management and leadership. Should ideological dilemmas arise either through potential contradiction to those literatures or perhaps to the thoughts of dentists working in practice, they will provide opportunity for further investigation to understand the phenomenon more deeply and facilitate further collective learning.

1.7.2 Epistemology – constructivist and interpretative approaches.

The epistemological position taken in this study includes the dual perspectives of interpretivism and constructivism⁶. These postulate that reality or ‘truth’ is not independently learned or discovered, but is built or constructed within and by individuals, and/or societies or communities. It is created within their particular environment, through adopting certain behaviours and interactions with both people and objects (including tools, equipment, documents etc.) (Silverman, 2006).

⁶ The term constructivism is often used interchangeably with social constructionism and within the context of this study they do not need differentiating (Andrews, 2012). Such a constructivist epistemological stance makes no reference to either a realist or relativist ontological position, and is therefore appropriate in this case to the ‘subtle realism’ ontology described.

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The interpretivist position proffers that not only is understanding of the social world and its phenomena constructed through the actions and interactions of the actors or players involved, but also through the meaning that they place on them, within that specific interaction. To explore the phenomenon of 'management and leadership' in dentistry, therefore, both the doing and the meaning placed on that doing by the dentists themselves is explored.

I.7.3 Ethnography.

Ethnography is a multi-dimensional concept and has been defined as a style of research, a perspective (i.e. being any kind of qualitative research not involving surveys), a methodology and a method (field work) (Brewer, 2000; O'Leary, 2013; Pink, 2013; Silverman, 2006). This study utilises the definition by Brewer (2000 p6), of ethnography as method.

“Ethnography is the study of people in naturally occurring settings or ‘fields’ by methods of data collection which capture their social meanings and ordinary activities in order to collect data in a systematic manner but without meaning being imposed on them externally.”

I.8 Underpinning methods of enquiry.

This study involves the use of video recordings within a naturalistic, constructivist and interpretive methodological framework. This departs from the more common use of video in healthcare as an audit tool, towards its use in research, reflection and discovery (Collier, 2016; Gordon *et al.*, 2017; Heath *et al.*, 2010; Jewitt, 2012). Observation and awareness of the tacit processes undertaken by clinicians facilitates detection and understanding of the social, interpersonal, relational, emotional and

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taken for granted work behaviours they carry out. This insight into the complexities of their day-to-day work provides the prerequisite in-depth understanding to facilitate development of meaningful constructs and criteria for education. This will add to and complement the outcomes already in existence and provides a robust theoretical base for immediate mapping purposes and later ongoing development.

Dentistry has numerous contexts in which clinicians can work (including primary care practice and secondary care hospital services) and as such may require various models of leadership for each of those environments. At the beginning of their training, dental students may not know which area of dentistry they wish to work in, but the majority of graduates will enter Dental Foundation Training (DFT) immediately after graduation. The final framework being situated in the primary care practice arena supports the transition from the context of undergraduate training into the DFT curriculum.

In line with current literature on leadership research by Yukl (2002), this study's aims are realised through observational and interpretivist exploratory methodologies and thorough, meaningful interpretation of the data. Data are deconstructed and recontextualised so that findings can be interpreted and extrapolated to create the relevant and in-depth construct of leadership required to define assessment criteria and learning outcomes. Opportunity for meaning making from the participants is embedded to align with the need to understand and give a voice to the actors who reside in and generate the 'lived ideology'. The findings therefore embed the multivoicedness of leadership as well as being contextually authentic.

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The study utilises an innovative, blended methodological approach set in a post-positivistic subtle realist ontology. Knowledge creation within interpretive and constructivist epistemological paradigms include the contribution of both the practitioner and researcher in the co-construction of understanding and learning. The combination of ethnographic, case study and Video-Reflexive Ethnography (VRE) methodologies, enables the nuance, complexity and individual to be incorporated into the final outcomes. VRE specifically aligns with the creation of lived ideology through the underpinning idea of the 'zone of maximum complexity' (Iedema *et al.*, 2019 p5). This is where clinicians undertake their day-to-day clinical practice. VRE adopts the position that only people who reside and work in this zone day in day out are privy to its meaning and functions, and exploring this zone is how learning, understanding and development can occur.

Detail of all these processes are described and explained in detail in the methodology chapter (chapter two).

1.9 Exploring leadership in dentistry using Activity Theory as the theoretical lens.

Activity Theory (AT) is a sociocultural theory that can be used as a methodology and/or a theoretical framework to analyse and explore complex, dynamic human and social activities (Hashim & Kones, 2007). It provides a theoretical lens through which to deconstruct and contextualise such complex activity from within a cultural and historical perspective, embedding the history and development of 'cultural norms' of a community within its framework (Edwards, 2011; Postholm, 2008).

Activity Theory derives from the original work of psychologists including Vygotsky and Leont'ev. It continues to be developed by Engestrom and his team and reported

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via the CRADLE website⁷. Third generation Activity Theory has been used across a wide variety of settings as a robust research methodology including in healthcare practice, education, leadership and computer work practices (Engestrom & Young, 2001; Engestrom, 2000; Lee, 2011; Lin *et al.*, 2013; Postholm, 2015; Spillane *et al.*, 2001; Yuen *et al.*, 2016). It is proposed that it can be used for organisational development, learning and analysing work practices, and to identify and develop interprofessional and complex systems of social activity through “*expansive transformative learning*” (Engestrom, 2000 p960). Expansive transformative learning is the discovery of new, previously undiscovered knowledge that may facilitate fundamental understanding to support significant change, learning or development (Engestrom, 2011; Engestrom & Young, 2001). Such learning occurs in the ‘zone of proximal development’ (Johnston & Dornan, 2015 p94) which is a shared space in which the learner (with teacher or community), or the collective, learn from and with one another to discover this new knowledge (Engestrom & Young, 2001; Johnston & Dornan, 2015).

Socio-cultural theories bridge the gap between mind and world, and allow learning from the combination of internal and external events (Roth & Lee, 2007). Activity Theory enables work to “*reintegrate the unnecessary dichotomy of psychology and sociology*” (Lee, 2011 p404), so that learning is not viewed as limited to either a purely cognitive or a purely social function. Its use therefore optimises the potential for such expansive transformation to be achieved in this study.

Third generation Activity Theory (Warwick Insitute of Employment Research, 2011) allows the historical, contextual and cultural impacts of the dental surgery

⁷ <https://www.helsinki.fi/en/researchgroups/center-for-research-on-activity-development-and-learning/activity-theory-at-cradle>

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setting to also be embedded within the data analysis. These areas are reported as being influential on the leadership that occurs within a specific context (Alban-Metcalfe & Alimo-Metcalfe, 2009; Forsyth *et al.*, 2009). Third generation AT also acknowledges the “multivoicedness” (Warwick Institute of Employment Research, 2011 p2) of the context to include the viewpoints of observer, participant, patient and regulator; in addition to the multiple perspectives, numerous activities and reciprocal influence processes that may be included in ‘leadership’. The previously discussed ideological dilemmas are accounted for through the identification of disturbances or conflicts within and between outcomes, behaviours, individuals and objects – seen as ‘contradictions’ (Engestrom, 2000; Warwick Institute of Employment Research, 2011). The study of these contradictions optimises learning and discovery. Activity Theory as used in this study is described in detail in the methodology chapter (Chapter Two).

I.10 Layout of thesis.

The following chapters will seek to guide the reader through this study from development of the study questions to findings, outcomes and conclusions. The combined synthesis of the three part literature review initially situates this study against current knowledge and understanding of the phenomenon of management and leadership in healthcare and dentistry. It includes political and governance overview, patient facing healthcare in general, and individual dentist and healthcare clinician contexts. This situating of the study enables the research questions to be defined fully and the methodology to be considered.

The methodology chapter demonstrates clearly how the research process mirrors the philosophy and theory, and how it sets out to address the research questions and

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meet the aims of the study. Through a reflexive and transparent approach to process and decision making, the methodology chapter explains the process as well as generating the foundations for trustworthiness and legitimacy of the findings.

The findings chapters reveal how the research questions are addressed through robust data analysis and illustrated by participant quotes and still images.

Deconstruction and recontextualisation of the data is explored and discussed as it leads to interpretation and discovery of the inductively derived overarching concepts of leadership and development of the framework. The Hanks Framework can be used to depict and facilitate understanding of the phenomenon of leadership in dentists.

Potential uses of the framework are discussed along with specific examples of how it might be used; and constraints and facilitators to its operation in practice. This final framework firmly locates dentists' leadership in the current circumstances of dental practice for dental education while explaining the potential for theoretical generalisability to other healthcare workers and situations. Generalisability of findings is discussed in the final chapter, which also provides a summary of the entire study process. Limitations of the study and consideration of impact and further work that may be undertaken to add to and advance the potential impact of this new knowledge and framework are also considered.

The bibliography and appendices are detailed after the final chapter, for information and reference.

I.11 Originality and contribution to knowledge.

This study researches dental leadership in primary care dental practice, and this in itself is original. The subsequent findings relating to leadership, the conceptual framework developed, and the innovative blended methodology are also original. The contributions to this area of knowledge therefore relate to both the substantive leadership content, as well as providing opportunity to underpin and advance its education. The innovative research methodology contributes itself to the healthcare research arena, through its use as a blueprint for other research, through its potential impact for and on learning and through the findings and outcomes inspiring future work.

The conceptual framework of leadership developed from this work may serve as a basis from which to generate theoretical models of leadership for specific teaching, learning and assessment strategies and curricula. This will ensure definable and authentic outcomes and criteria at a variety of Bloom's cognitive and behavioural levels (Bloom, 1953; Krathwohl, 2002) and their constructive alignment with appropriate educational methods and strategies. Researchers and/or educators can consider additionally the concepts within the final framework against various existing teaching and assessment contexts and curricula, and map them to existing regulatory outcomes.

Through contributing such original knowledge, this thesis provides an evidence base upon which to build to enable the governing body of the GDC, educational institutions and providers in undergraduate and postgraduate arenas to utilise and develop. They may employ the methodology as stated, or further refine it to undertake

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additional research or to enhance learning in other ways. They may use the findings and outcomes to develop, map, refine and build curricula and learning outcomes for assessment, teaching and learning.

Through theoretical generalisability (Carminati, 2016; Flyvbjerg, 2006; Hammersley, 1992) this study's conceptual framework may be relevant to leadership across multiple boundaries and in various additional contexts and professions.

I.12 Conclusion.

This introduction has presented the background information and current position relevant to the fields of the education and regulation of management and leadership in dentistry. An overview of the research aims, methods of enquiry, methodology, methodological, theoretical and conceptual considerations have been introduced, and the research paradigm has been defined. The use of Activity Theory as the theoretical lens has been introduced to prepare for additional explanation and later analysis and interpretation of the data. Leadership, dentists, dental practice and education have been linked explicitly and aligned to the specific study paradigm.

A frame of reference for the aims of this research and how it relates to dentists and their leadership has, therefore, been provided. This has supported development of two research questions:

1. How do dentists working in primary care dental practice identify and demonstrate management and leadership skills and qualities in their day-to-day work?

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2. How might these skills and qualities be conceptualised into a framework to enable their use as constructs for valid and authentic teaching, learning and assessment?

The review of the literature that follows will identify and critique what is already known and what remains to be discovered about management and leadership in dentistry, in relation to this background, the research aims and questions.

Chapter One: Literature Review

What do we know about Leadership in Dentistry? A Narrative Review.

“The concept of leadership means different things to different people”

(Brocklehurst *et al.*, 2013 p 243)

1.1 Introduction to review.

This study aims first to describe, interpret and explain the phenomenon of ‘management and leadership’ in dentists in primary care practice. In turn this will support the development of a conceptual framework of management and leadership for use in education. This will enable the identification and development of authentic and evidence-based constructs, criteria and competencies to be used in education to guide the training and appraisal of dentists. In so doing, it will underpin excellent patient care and safety. As explained in the introduction much current work on leadership seeks to include dentistry alongside medicine and other healthcare professions. The aim of this narrative review, therefore, is to situate and explore the current knowledge and evidence relating to management and leadership. It identifies what we already know about management and leadership as a phenomenon in the area of healthcare more widely as well as in dentistry more specifically.

Owing to the quantity, diversity and breadth of the literature on management and leadership this review was completed in three stages. A systematic search methodology was used to ensure appropriate sensitivity and specificity when capturing the available literature. Details of the search strategy are described fully in section 1.3 below.

The three distinct stages of the search process were:

1. A scoping overview of management and leadership policy context.
2. A systematic search for a review of reviews of leadership in healthcare.
3. A systematic search for a focused review of leadership in dental or relevant primary care, patient facing practice.

Papers from all three stages were reviewed together as a single body of literature via a narrative review process. Narrative review is a form of storytelling and a highly appropriate method to collate such disparate and large volumes of information from across a wide range of sources and types of literature (Popay *et al.*, 2006; Ryan 2013). Systematic searching and analysis of this heterogeneous literature, permitted conclusions to be drawn from across dissimilar study types, research methods, outcome measures, modes of analysis and types of data. The narrative review process allowed integration of the varied data into a single format for clarity of sharing and understanding.

The results of the combined review defined the current understanding of management and leadership and its relevance to the dental practice setting.

The aims of the narrative review were to determine:

- What is already known about and understood by the terms 'management and leadership' in healthcare more widely, and with relevance to the behaviour and skills of dentists working in primary care dental practice more specifically.
- If and how the terms 'management and leadership' are conceptualised in a relevant way for the dental setting.

- Whether there are any accepted leadership styles, theories, skills, traits or behaviours deemed necessary to enable dentists to provide effective clinical care for their patients in primary care dental practice.

1.2 Overview of search strategy.

Stage 1 was a scoping exercise incorporating overarching, commonly cited literature on management and leadership in organisations, as well as aspects of the more policy driven grey literature in health care. Much of this was related to the NHS and organisational governance in general, rather than clinical practice in particular. The NHS continues to have a profound impact on the entire healthcare environment and forms the infrastructure for UK healthcare both within the NHS and in independent non-NHS private and insurance-based governance systems. It has been historically the major influence for healthcare development across all areas of health, including dentistry. The NHS is a unique UK institution and distinctive from governance processes in other countries. It was therefore important to include this literature as it is likely to supersede or influence the impact of international healthcare literature in this context. In recent years, as all national institutions including the NHS have become more financially constrained, a more 'private looking' business model has been adopted across many aspects of NHS leadership and so this literature may begin to show convergence with private and international healthcare.

Stage 2 was a review of reviews of leadership healthcare; more specifically describing the current academic position and theory of management and leadership in clinical healthcare settings. The inclusion of this field gives context to the healthcare

setting where patient oriented outcome measures are often influential in addition to consumer, organisation or employee outcomes.

Stage 3 related specifically to leadership in frontline patient facing primary care clinical practice including dental practice. This provides the specific context of a clinician who is responsible for the care and treatment of a patient. Both the generic healthcare setting and the clinician emphasis enhances the relevance of the search findings to dental practice.

The literature on generic management and leadership was found in a wide variety of sources and subject areas, and at varying levels of scientifically accepted evidence 'quality'. Time constraints and the potential to exclude 'low quality' yet important and influential items, meant that a traditional scientific or healthcare Cochrane-esque systematic review aiming to discover and collate the entirety of the available literature was therefore near impossible. Through the use of narrative synthesis, a theoretical saturation of the available literature was achieved, thus enabling timely and relevant findings for this purpose (Popay *et al.*, 2006; Ryan 2013).

The search strategies were conducted in line with guidelines and best evidence (Cook & West, 2012; Haig & Dozier, 2003). Studies were assessed for eligibility for inclusion by the lead researcher and in liaison with members of the supervisory research team. This was continued throughout the process to minimise the possibility of single researcher influence over the review, and to enhance transparency. 73 papers were included in the final overarching narrative synthesis of all three stages.

1.3 Detailed systematic search strategy.

1.3.1 Stage 1: scoping exercise - review of policy context.

This initial scoping element of the three stage review was conducted in a semi-structured manner to provide an overview of policy context. A search was conducted of the relevant health care related websites:

- Kings Fund,
- FMLM (Faculty of Medical Leadership and Management),
- NHS Leadership Academy,
- GMC (General Medical Council),
- GDC (General Dental Council)

Hand searching of the reference lists of the located documents was undertaken to supplement the findings and review the underpinning generic ‘evidence base’ for leadership to the current context.

Table 1.1 details the 22 documents retrieved through this initial scoping website search.

Table 1.1 List of publications relating to management and leadership from stage 1: review of policy context.

Author	Month/Year	Publisher	Title
Darzi	2008	Department of Health	High Quality Clinical Care For All
NHS	2009	NHS Leadership Academy	Medical Leadership Competency Framework (MLCF)
GMC	2009	General Medical Council	Tomorrow’s Doctors
Giordano	2010	King’s Fund	Leadership needs of medical directors and clinical directors
Hardacre Cragg Shapiro Spurgeon Flanagan	January 2011	The Health Foundation	What’s Leadership got to do with it?
King’s Fund	2011	The King’s Fund	The future of leadership and management in the NHS: no more heroes

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Nicolson Rowland Lokman Fox Gabriel Heffernan Howorth Ilan-Clarke Smith	April 2011	National Institute for Health Research	Leadership and Better Patient Care: Managing in the NHS
Alimo-Metcalfe	2012	The King's Fund	Leadership and engagement for improvement in the NHS: Together we can
NHS	2012	NHS Leadership Academy	Clinical Leadership Competency Framework
GMC	2012	GMC	Leadership and management for all doctors
Francis	February 2013	The Stationery Office	Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry
Storey Holti	June 2013	The Open University Business School	Towards a new model of leadership for the NHS
King's Fund	2013	The King's Fund	Patient-centred leadership: Rediscovering our purpose
NHS	2013	NHS Leadership Academy	Healthcare Leadership Model v1.0
West Eckert Steward Pasmore	May 2014	The King's Fund CCL [®]	Developing collective leadership for health care
King's Fund	May 2014	The King's Fund	Culture and leadership in the NHS: The King's Fund 2014 survey
West Armit Loewenthal Eckert West Lee	2015	Faculty of Medical Leadership and Management (FMLM)	Leadership and Leadership Development in Health Care: The Evidence Base
GMC	2015	GMC	Outcomes for Graduates
Sarah Massie	2015	The King's Fund	Talent management. Developing leadership not just leaders
FMLM	2016	Faculty of Medical Leadership and Management (FMLM)	Leadership and management Standards for Medical Professionals. 2 nd Edition
NHS	December 2016	NHS Improvement	Developing People – Improving Care A national framework for action on improvement and leadership development in NHS-funded services
Michael West Regina Eckert Ben Collins Rachna Chowla	May 2017	The King's Fund	Caring to change. How compassionate leadership can stimulate innovation in health care

1.3.2 Stages 2&3: systematic review of reviews and focused review.

Stages 2 and 3 of the literature review followed an accepted systematic search strategy as outlined in figure 1.1.

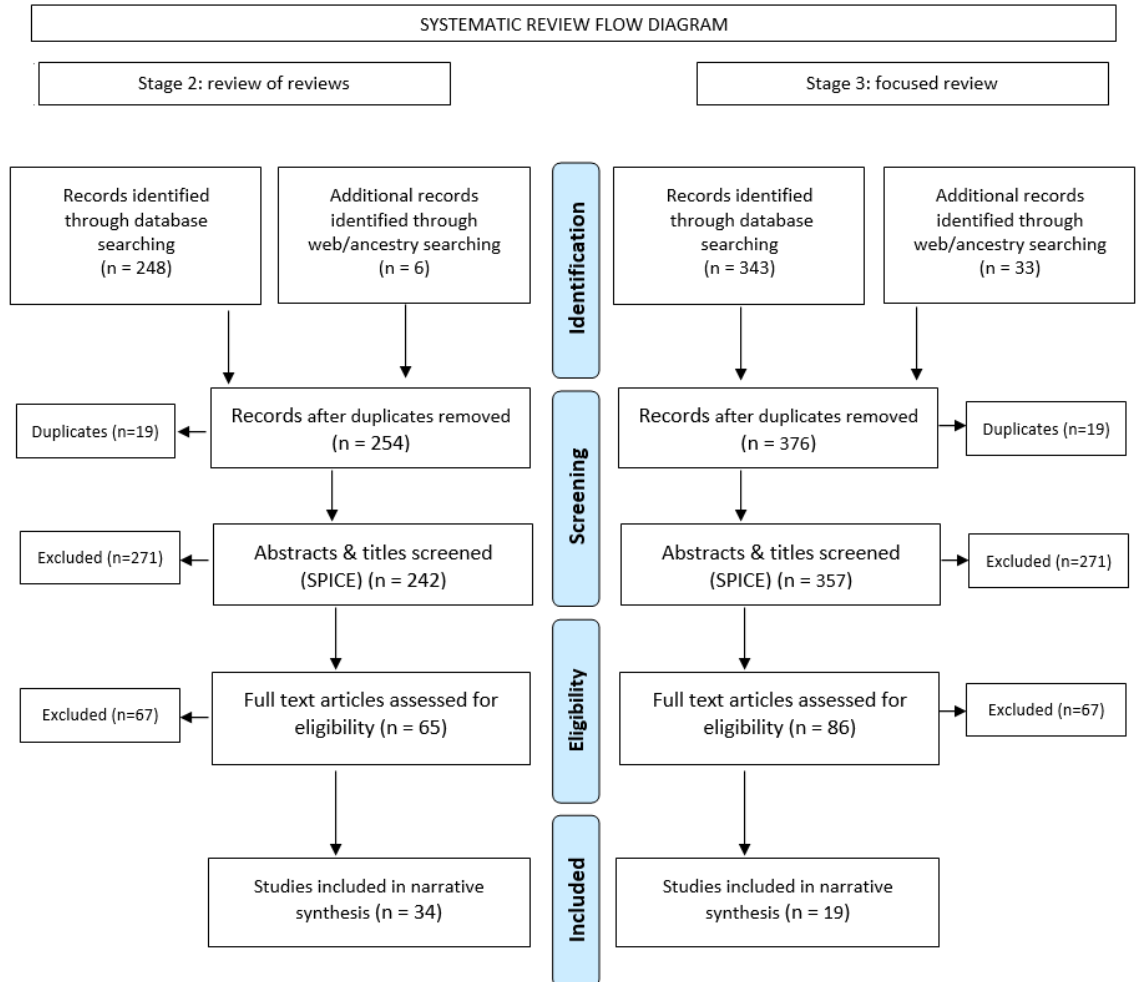


Figure 1.1 Flow diagram of searches for stages 2 and 3 – based on PRISMA guidelines (Moher et al., 2009).

Nine databases were searched. They were identified to provide wide coverage across the fields of management and leadership in business, healthcare and medical education (Cook & West, 2012; Haig & Dozier, 2003).

- Medline (EBSCO)
- British Education Index (EBSCO)

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- Dentistry and Oral Sciences Source (EBSCO)
- PsychInfo (ProQuest)
- Excerpta Medica Database (Embase)
- JStor
- Business Source Complete (EBSCO)
- Health Management Information Consortium (HMIC)
- Cumulative Index of Nursing and Allied Health Literature (CINAHL) (EBSCO)

Searches were conducted using Boolean operators and notations appropriate for the specific database as described below.

The term 'management' was not used independently as it commonly refers to the clinical management of medical conditions that fielded copious irrelevant results. Although there is debate about the precise definitions of management and leadership, they are frequently used together and therefore removing it enhanced the specificity of the search results, without severely decreasing the sensitivity.

The literature on management and leadership in healthcare has developed greatly within the last 15 years with multiple organisations seeking to enhance the profile of leadership since 2010. Stage 2 and 3 searches were therefore limited to the last 10 years: to avoid duplication of earlier work, previous reviews of the literature or inclusion of outdated research, but to include important information, additional to and independent from, the industry funded studies of the early 2010s.

The context of this study was dentists working in primary care dental practice. However, studies that related to management and leadership qualities in clinical care

practices of other front line clinical staff were included where they utilised a conceptual rather than governance angle, to enhance the relevance of the review findings.

1.3.3 Stage 2: search terms and outcomes.

The following search terms were used across all nine databases.

Leader* OR "management and leadership" (Title)

AND

review OR "literature review" OR synthesis OR "meta review" OR "meta synthesis"
(Title)

AND

Health* OR medi* OR doctor* OR clinic* OR dentist* OR dental OR nurs* OR patient*
(abstract)

Searches were conducted within specific limiters:

- 2006-January 2019
- Written in English
- Full text available

Ancestry searching of the included studies was undertaken to identify any additional potentially relevant publications (Haig & Dozier, 2003 p355). Duplicates from this process were not included.

248 records were retrieved from the database search with 6 additional relevant records noted from within those.

12 duplicates were removed and titles and abstracts of 242 articles were screened against the following SPICE [Setting; Perspective; phenomena of Interest; Comparison; Evaluation] framework (Booth, 2016).

- **Setting:**

Healthcare or healthcare organisation.

- **Perspective:**

Studies identifying or evaluating or discussing management and/or leadership qualities.

- **Phenomena of interest:**

Management and/or leadership qualities, styles, theories, traits or behaviours, or which provide any conceptual framework or underpinning of the same.

- **Comparison:**

Studies with or without comparators will be included.

- **Evaluation:**

Reviews or syntheses of a body of literature.

177 records were screened out at this stage as they were book reviews; reviews of leadership training programmes; reviews relating to religious leaders; not about leadership; clinical case presentations; evaluation of attitudes to leadership; non-healthcare settings such as schools, and industry.

Where a decision could not be made from the title or abstract alone, the full text was used.

The full text of the remaining 65 articles were studied against the specific inclusion and exclusion eligibility criteria in table 1.2.

31 additional papers were screened out for the following reasons:

1. Review of other than a body of literature (educational intervention, book, paper, specific clinical role) (19)
2. Framework, report or commentary (4)
3. Not related to leadership or healthcare (3)
4. Protocol only (2)
5. No full text (2)
6. Not English (1)

Table 1.2 Eligibility criteria for stage 2: review of reviews.

Inclusion	Exclusion
Last 12 years (2006 – present)	Prior to 2006
English	Non English
Full text only articles	No full text available
Peer reviewed	Non peer reviewed
Review or synthesis of body of literature	Reviewing/synthesis of other than body of literature

Ultimately 34 studies were included in this second stage of the literature review.

1.3.4 Stage 3: focused review related to dental or other patient facing primary care clinical practice.

The following search terms were used across all nine databases.

Leader* OR Leading OR “management and leadership” (Title)

AND

Dent* (Abstract)

Searches were conducted within specific limiters:

- 2006-January 2019
- Written in English
- Full text available

343 records were retrieved from the database search. Ancestry searching of the included studies was undertaken that identified 33 additional potentially relevant publications (376 records in total). Duplicates from the ancestry searching process were not included.

19 duplicates were removed and titles and abstracts of 357 articles were screened against the following SPICE [Setting; Perspective; phenomena of Interest; Comparison; Evaluation] framework.

- **Setting:**

Clinical healthcare patient facing primary care practice.

- **Perspective:**

Studies identifying or evaluating or discussing management and/or leadership qualities of dentists or other patient facing frontline healthcare practitioners (clinicians).

- **Phenomena of interest:**

Management and/or leadership qualities, styles, theories, traits or behaviours, or which provide any conceptual framework or underpinning of the same.

- **Comparison:**

Studies with or without comparators will be included.

- **Evaluation:**

Studies which evaluate the impact of different management and leadership styles, theories, strategies, or those which evaluate qualities that impact perceived management and leadership traits: directly related to clinical practice. Studies that evaluate any causal or inter-relationship between management and leadership and personal or professional qualities of clinicians.

271 records were screened out at this stage where studies were not related to the patient facing clinical setting; non healthcare; not related to leadership in clinicians; related to clinical issues or training & educational areas; not an empirical study but announcements/adverts/obituary/interview/conference promotion.

The full text of the remaining 86 articles were then studied against the specific inclusion and exclusion eligibility criteria in table 1.3.

Table 1.3 Eligibility criteria for stage 3: focused review in clinical practice.

Inclusion	Exclusion
Last 12 years (2006 – present)	Prior to 2006
English	Non English
Full text only articles	No full text available
Peer reviewed	Non peer reviewed
Relating to clinicians undertaking direct patient care	Relating to non-clinicians or clinicians with no direct patient care responsibilities
UK setting	Non UK setting

Specifically related to leadership qualities of practitioners	Not specifically related to leadership
Related to clinical practice	Related to clinical education, evaluation of training programmes or research
Any managerial level directly related to clinical frontline practice where clinical work or patient care is still undertaken	Strategy or senior management governance level removed from front line clinical practice; unrelated to clinical work or where no patient care is undertaken

67 additional papers were screened out for the following reasons:

1. Not related to clinicians undertaking patient care (25)
2. Not related to the direct patient care setting (23)
3. Not related to leadership (12)
4. Non peer reviewed (4)
5. Summary of included article (3)

Ultimately 18 studies were finally included in this third stage of the literature review.

Only 2 duplicate records appeared across more than one part of the review and each was considered once only when collating results and findings.

1.3.5 Website search.

Finally, an overview search of the online grey literature related to the field of management and leadership in healthcare was conducted to ensure that no popular information had been missed by the more systematic searches. The internet search

was conducted using the advanced search function of the Google search engine as below and the first 20 hits reported:

Find web pages that have all these words	dent* AND leader*
Find web pages that have any of these words	“management and leadership”
Language	English
Results (date) completed search:	22 nd January 2019
Find web pages that have all these words	medic* AND leader*
Find web pages that have any of these words	“management and leadership”
Language	English
Results (date) completed search:	22 nd January 2019

Of the forty hits all were excluded on the following grounds:

1. Newspaper articles/adverts/promotional material/training events (18)
2. Independent and/or corporate leadership, dental or medical practice websites (11)
3. Duplicates from database searches (7)
4. Out of date range (prior to 2006) (3)
5. Personal blog (1)

Seventy three papers were included in the final complete review.

22 from stage 1 – the policy review context

33 from stage 2 – the review of reviews in healthcare

18 from stage 3 – the focused review in dental practice (including one duplicate from part 2).

1.3.6 Quality Assessment Rating (QAR).

There is currently no single accepted method for quality assuring such a wide range of publications and web resources. CASP tools⁸ were used for quality assurance of systematic reviews and studies employing qualitative methods while the Cochrane risk of bias tool⁹ (covering bias in the areas of selection; performance; detection; attrition; reporting; other) was utilised for other types of study.

All included studies from stages 2 and 3 of the review were given a final quality rating of low, medium or high. CASP ratings of 0-3 resulted in a low quality; 4-6 medium; 7-10 high. For the CASP literature review studies question 6 was not included as this is a description of the results and included in the tables. Therefore the CASP rating for systematic reviews was out of 9, the rating for qualitative studies was out of 10.

The Cochrane Risk of Bias (RoB) gave results of Yes (Y), No (N) or can't tell (CT) across 5 areas. A low rating was awarded for 0-2 N & 3-5 Y; medium for 0-2 N & 2 or fewer Y; high for a minimum of 3 N and 0 Y.

1.4 Data Extraction, Analysis & Quality Assessment Rating (QAR).

Data were extracted and analysed with respect to citation; type of document or study; level of organisational leadership; aim of leadership; definition of leadership;

⁸ <http://www.casp-uk.net/casp-tools-checklists>

⁹ <http://methods.cochrane.org/bias/assessing-risk-bias-included-studies>

explicit links to any recognised leadership theories or models; concept of leadership; and QA rating (where appropriate). Details of all the included documents against the review analysis criteria are fully described in Appendix 1A. The data sources comprised quantitative and qualitative studies, as well as grey literature (including privately commissioned reports) and systematic reviews. The studies from the second and third stages of the review were quality assessed after their inclusion had been established. This QAR did not exclude items from the process, but provided information to conduct a post review sensitivity analysis. This looks at the impact of removing or including lower quality-rated items on the overall outcomes of the review and is discussed in section 1.5. Detail of the QAR process is described above and its outcomes for each study can be seen in Appendix 1A.

1.5 Findings from the combined stages of the review.

1.5.1 Conceptualising management and leadership.

What is consistent throughout the literature is that ‘leadership and management’ is reported to be an abstract construct that is not directly observable; it is a social process that needs other people (to be a leader one needs ‘followers’ or associates); and it is a complex and dynamic activity that contains multiple interacting variables. It is dependent or ‘contingent’ on who an individual is, how they behave, and the context in which they work (Nicolson *et al.*, 2011; Uhl-Bien *et al.*, 2014; Boyatzis 2008; Nienaber 2010; Willcocks *et al.*, 2013; Yukl 1989).

The conceptualisation of both elements ‘management’ and/or ‘leadership’, separately or conjoined is itself problematic. Much literature suggests there is a

distinct division between the two concepts: “*management is doing things right, leadership is doing the right thing*” (Levin 2007 p9); “*managers have subordinates, leaders have followers*” (Peate 2011 p8); and “*management is transactional, leadership is transformational*” (Brocklehurst *et al.*, 2013a p5).

In contrast, writings from this management versus leadership debate report that the two concepts are inextricably interwoven and share the common goal of being concerned with the success of a business and/or task. Activities related to achieving such success have been categorised into “*planning, organising, command, coordination and control*” (Nienaber 2010 p670) and so can be linked to both leadership and management equally, removing the distinction between them.

The 2011 Kings Fund publication ‘No More Heroes’ while making clear division between leadership, management and administration, advocates that all are required; “*without leadership there can be no effective management – because the organisation will not know what it is meant to be doing – and without good administration, management can be rendered ineffective. The three are interdependent*” (King's Fund 2011 p1). This would suggest that they might not be best investigated as discrete entities, but as divisions of one larger phenomenon.

The ‘shop floor’ versus ‘chief executive’ metaphor has been used to highlight the differences and similarities in the concepts of management and leadership as they relate to hierarchical or formal authority levels or roles. This suggests that the concepts will be seen as different, depending on the level they are being looked at **from**. Nienaber (2010) suggests that it is only a viewpoint that “*... may explain the difference between management and leadership, as the different hierarchical levels*

require different tasks/responsibilities/roles” (Nienaber, 2010 p670). This explanation embeds the importance of the **response** to leadership, while describing it through arbitrary measures such as operational role, hierarchical status and activities undertaken.

Despite the apparently clear distinctions between them, when themes related to management and leadership were analysed, none related to leadership alone, few related solely to management and the majority were shared (Nienaber, 2010). This supports the currently widely acknowledged view that most leaders are also managers and most managers have some leadership roles assigned to them. Effective individuals combine elements of both (Barker, 2010; Sutton, 2010; Yukl, 2013).

Nienaber (2010) also suggests that there is such overlap in the two concepts and that because the original etymology of both words meant the same thing, using the terms combined or synonymously does no harm as long as it does not detract from the importance of the underlying tasks, activities and concepts to which the words are referring. The arbitrary distinction between management and leadership therefore may not be relevant to this work. It can, however, be used in specific contexts or at specific levels, to define roles and responsibilities. For the remainder of this thesis, the term leadership will be used as an umbrella term, to remove any unnecessary diversion into this ‘same or different’ debate.

1.5.2 Considering the policy context of leadership.

The development of management and leadership from the early days of the turn of the 20th century has been studied and published in multiple forms across multiple

professions and with variable academic rigour (Nicolson *et al.*, 2011). The 2015 Faculty of Medical Leadership and Management (FMLM) literature review found “*relatively little research conducted to a high academic standard*” (West *et al.*, 2015 p10). While these studies may look at a huge range of variables and outcomes, the more recent reports all support the notion that effective leadership is imperative to produce success (in whatever guise success is defined).

The FMLM established in 2011 by all the medical royal colleges and faculties, and endorsed by the Academy of Medical Royal Colleges (AoMRC) calls itself the professional home for medical leadership in the UK. It notes that its aim is to “*raise the standard of patient care by improving medical leadership*”¹⁰. Through producing competency standards and curriculum development documents it has aligned itself with education and training in addition to governance and policy.

The King's Fund (est. 1897) which is an independent UK organisation, state they are “*working to improve health and care in England. Our vision is that the best possible health and care is available to all*”¹¹. The Center for Creative Leadership (CCL[®]) established in 1970 – an independent US based global organisation - seeks “*to advance the understanding, practice and development of leadership for the benefit of society worldwide*”¹². These organisations have published multiple documents over the last 15 years in the pursuit of advancing and ‘professionalising’ leadership within the NHS specifically, and healthcare more generally. Many of these documents have been commissioned and/or written by independent bodies who have their own (political,

¹⁰ <https://www.fmlm.ac.uk/privacy-statement>

¹¹ <https://www.kingsfund.org.uk/about-us>

¹² <https://www.ccl.org/about-the-center-for-creative-leadership/>

financial and/or social) agendas when considering leadership within the specific governance framework of the NHS. They are often commissioned to support development within specific national, political and financial constraints, and not as independent pieces of academic research. As described above, this work is influential in healthcare and training even if it demonstrates variable academic quality.

Although purporting to relate to dentists as well as doctors, all of the documents found in part 1 were mapped solely to General Medical Council publications¹³ and used competencies, situations, case studies and criteria specifically related to medical practice. There was no mention of dental or dentist in any of the publications. Assessment methods and techniques were informed by reviews of medical literature, attitudinal studies and critical analysis of medical curricula; there was no direct observation or ethnography to confirm, clarify or operationalise them and there was no evidence that they have any direct link to dentistry either within or without the NHS setting.

Just as there was no evidence that they were relevant to dentistry, there appeared to be little evidence of their relevance to other primary care or community healthcare practitioners and practices – NHS or private. Additionally, the majority of these publications concentrated on leadership within the NHS framework in a secondary care hospital setting at an organisational (strategic) level (see figure 1.1).

Appendix 1B shows the data extraction table and categorises the included documents against the type of publication; level of organisational leadership; the

¹³ Tomorrow's Doctors 2009, Good Medical Practice 2013 and Leadership and Management for Doctors 2012

definition and aims of leadership they reported; and links to any existing theories or models of leadership. The underpinning models or theories come from a wide range of sources themselves, many of which are not based in the peer review literature, nor do they appear to have significant or robust evidence bases on which they have been developed. Many of the links are to general areas of theory rather than specific work and highlights the issue that *“much writing on leadership is very descriptive and anecdotal”* (Hartley *et al.*, 2008 p6). The policy context derived from stage 1 has infiltrated into healthcare more generically and informed some of the more specific literature included in stages 2 and 3, both implicitly and explicitly (Dickinson & Ham, 2008; Künzle *et al.*, 2010; Garrubba *et al.*, 2011; Peate 2011; Swanwick & McKimm, 2011; Brocklehurst *et al.*, 2013; de Zulueta 2015; Moore *et al.*, 2015). This promulgates such policy context based ideas, with their grounding in a politicised system, into the healthcare specific literature.

1.5.3 Defining leadership.

The consensus view across the included documents is that there are multiple and varied definitions of leadership – in fact at least 350,000 within the academic literature (Nicolson *et al.*, 2011). The myriad of definitions is based on almost as wide a variety of underpinning foundations:

“Leadership has been defined in terms of traits, behaviors, influence, interaction patterns, role relationships, and occupation of an administrative position” (Yukl, 2013 p24)

One commonly cited definition of leadership suggests that it is a “*process whereby an individual influences a group of individuals to achieve a common goal*” (Northouse 2010 p5). Nicolson et al (2011) in their NIHR funded study ‘Leadership and Better Patient Management in the NHS’ states that: “*Leadership is better explained as a process or series of processes of interaction rather than the presumption that it consists of observable and measurable characteristics*” (p24).

Within this current review a definition of leadership was provided in only 12 of the 73 papers where it has variously been defined as:

- A social or influence process occurring in a group (Alilyyani *et al.*, 2018; Cummings *et al.*, 2008; Cummings *et al.*, 2010; Dickinson & Ham, 2008; Nicolson *et al.*, 2011; Wong *et al.*, 2013; Brocklehurst *et al.*, 2013a).
- An ability, art or skill that leads to goal attainment (Richardson & Storr 2010; King's Fund, 2011; Parris & Peachey, 2013; Brocklehurst *et al.*, 2013).
- A regulatory, problem solving process that infers sustainability (dependability and predictability) (Storey & Holti, 2013).

Only one paper provided a specific definition of **clinical** leadership in general dental practice where it was defined as, “*the skills required to provide effective patient care within a successful business*” (Moore *et al.*, 2015 p255). A literature review about clinical leadership across the remit of healthcare reported that there is no standard definition of clinical leadership but that the clinical component relates to “*anyone with a clinical patient role*” (Garrubba *et al.*, 2011 p4). It reports that clinical leadership could be defined variously as a social process for goal attainment or an influence

process with or without an end point or aim. Clinical leadership tended to allude mainly to those in a management role who were also clinicians.

In line with generic literature, these 12 studies found no common ground where a definition was concerned. Nor did any of the studies attempt to operationalise leadership. This lack of consensus and practical contextual application, highlights and reflects the challenges in transposing such findings into a specific educational context for the construction of meaningful and authentic educational learning and assessment strategies.

The contemporaneous view of leadership is reinforced as a context dependent, multifaceted process containing several interacting areas that impact one another in a huge variety of ways. Interactions and impacts are reciprocal but not necessarily equal or stable. Hartley et al. (2008, p9) describe the threefold typology of leadership with influencing factors relating to the "*person, position and process approach to leadership*". These interacting areas, however, relate to a host of factors involving the individual; their abilities & behaviours; their relationships; the team; the task; and the environment.

1.5.4 Considering leadership levels.

The previously discussed arbitrary distinctions that some authors have made between management and leadership highlight the influence of context on leadership. An organisation's culture itself is a fundamental contextual influencing factor as the leadership processes embedded within it are shaped by such culture. Those processes then go on to further influence the culture in a cyclical process (Yukl, 1989). The FMLM

confirm “*there is no best way to develop leaders; good leader development is context sensitive*” (West *et al.*, 2015 p18) and that there is no single best method of leadership. Contextual factors that support a successful strategy in one situation may render them totally ineffective in another (Künzle *et al.*, 2010).

Organisational and leadership levels are a method of classifying the level that leadership is related to, investigated at, or conceptualised by within a specific organisation or business. Such classification identifies a specific contextual element to leadership and is defined at the following levels:

- Individual
- Dyadic (tactical/relational)
- Team or unit (operational)
- Organisation (strategic) (Dechurch *et al.*, 2010; Howieson & Thiagarajah, 2011).

This classification model is frequently referred to within business and healthcare literature and relates to specific roles held, hierarchical positions of individuals or groups, or the impact of leadership decisions and actions taken. The relationship between these levels is depicted in figure 1.2 which has been expanded from the findings of this review, to include elements of the general healthcare and dental environments.

Using leadership and/or organisational levels may help to define job roles, hierarchical structures, and at what level individuals are making decisions and plans. It

does little to progress the understanding of what leadership is, whether or not it is the same or different to management, or how to operationalise it successfully.

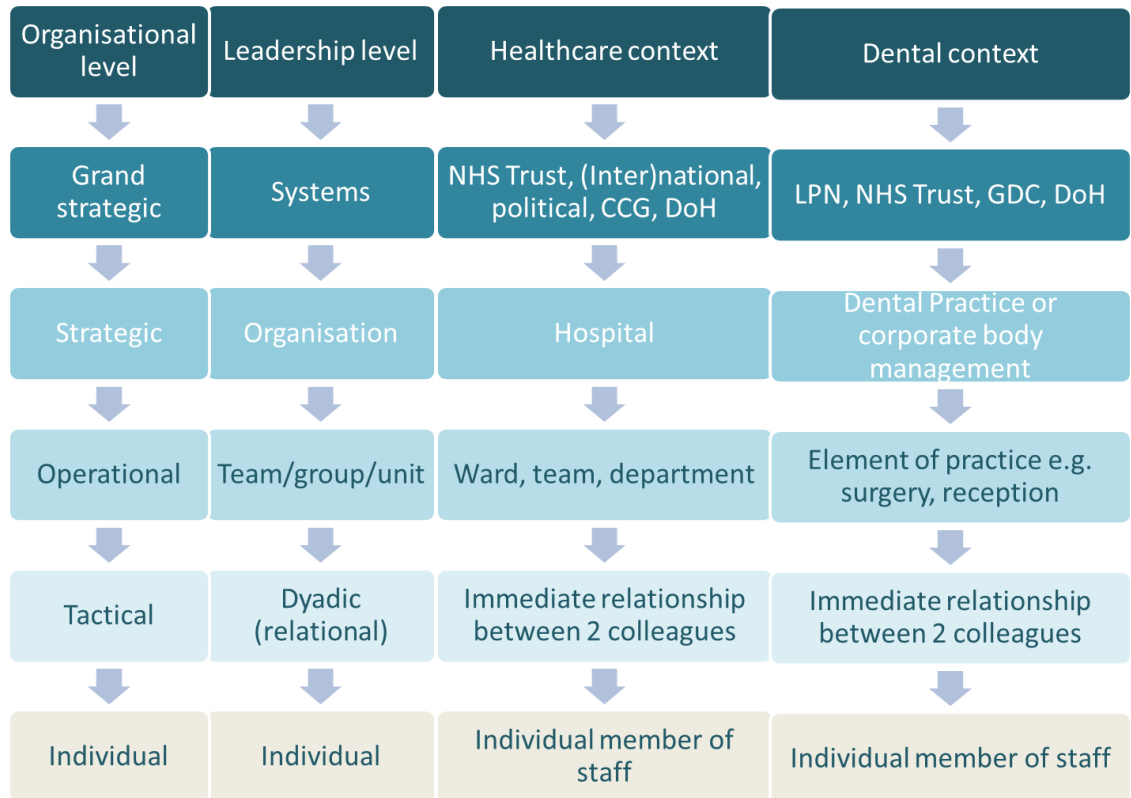


Figure 1.2 Organisational and leadership levels and how they relate to the healthcare setting.

Recent refinements to the organisational levels classification have been the addition of the grand strategic, political or systems level of influence (FMLM 2016; Nicolson *et al.*, 2011; Yukl, 1989; Yukl, 2013) along with the need for engaging with others and ‘crossing boundaries’ (Alimo-Metcalfe & Alban-Metcalfe, 2008; West *et al.*, 2017).

Boundaries are conceptualised as being anything that creates a barrier. This can be within or outside an organisation and relates to many factors including: formal hierarchical levels, organisation system levels, function, medical specialty, or role related (for example, nurse, doctor or manager) (Alban-Metcalfe & Alimo-Metcalfe,

2009; Dickinson & Ham, 2008; King's Fund 2012; Storey & Holti, 2013; West *et al.*, 2014; Yukl, 2013). 'Crossing boundaries' appears to reduce further the need to differentiate between management and leadership, while reinforcing the importance of recognising the leadership level the individual is functioning at.

1.5.5 Using competency frameworks.

Evidence relating to generic management and leadership skills covers a vast array of subjects including: leadership styles, the 'profession' of management, how to achieve excellence and evaluation of various leadership programmes (Barker 2010; Barsh *et al.*, 2008; McGurk 2009; Muethel & Hoegl, 2013; Shamir 2011; Solansky 2010; VanVactor 2012; Wiggins & Hyrkäs, 2011). Many of the generic skills have been developed into ideas, models or frameworks of 'competencies' which define outstanding leaders (across, and independent of, specific professions).

Boyatzis' (2008) model is depicted in figure 1.3 as an example of one such competency framework. The competencies described by Boyatzis take into account the integration of psychological, physiological and behavioural levels of the individual leader.

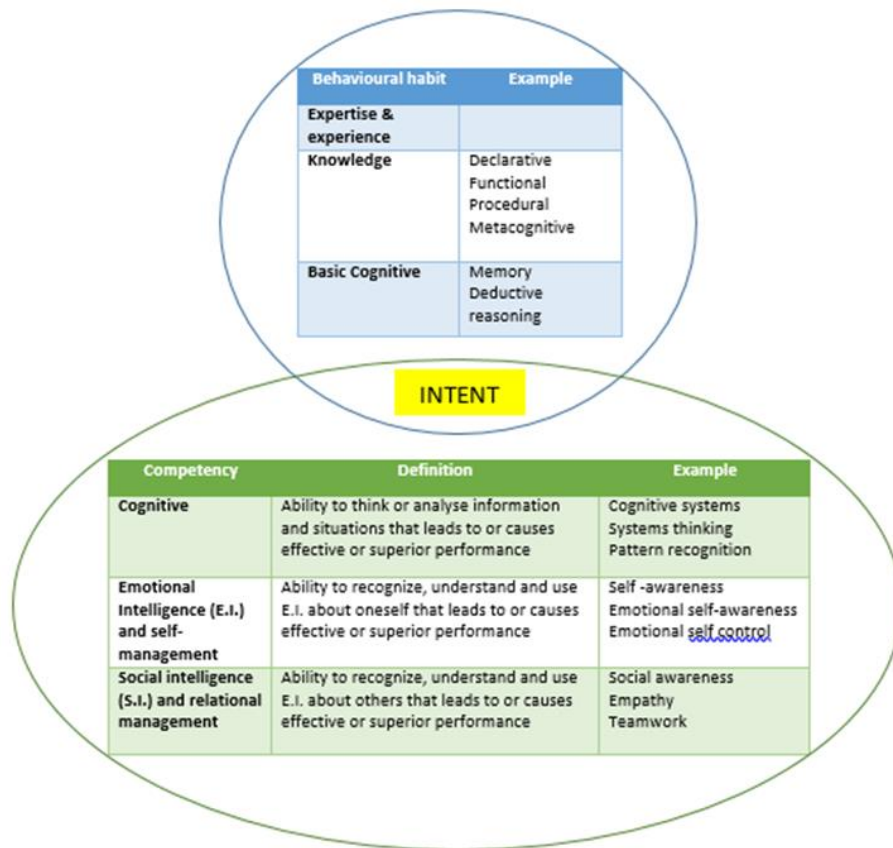


Figure 1.3 Competencies of outstanding leaders based on Boyatzis 2008.

The underlying assumptions are that a set of behaviours are different expressions of an intent. To assess overall competence you need to be able to **see** the behaviours and **infer** the intent. This is akin to competency-based assessment in education (Kane, *et al.*, 1999), previously discussed in the introduction, and which requires that such competencies be aligned to deeply and clearly understood constructs. Boyatzis described three main behavioural habits (expertise, knowledge and basic cognitive) and three clusters of competency (cognitive, emotional intelligence and social intelligence) that differentiated outstanding from average leadership performance. The underlying constructs were based on the understanding that people can change their mood, behaviour and self-image, and each of these influences the other. He

proposed that the use of a competency based approach could lead to a change in thinking and, in turn, behaviour. This competency framework could therefore be used for teaching and training strategies to enhance or develop leadership. This potential for development was supported by Holt (2008) who states that “*leaders are made not born*” (p13).

Boyatzis is one of many leadership competency frameworks available and such frameworks for leadership are very popular within the NHS, with new iterations being compiled on a regular basis. The iterations include the Medical Competency Leadership Framework (MCLF) (2010); Clinical Leadership Competency Framework (CLCF) (2012); the Healthcare Leadership Model v1.0 (2013); and the more recent, “Developing People – Improving Care. A national framework for action on improvement and leadership development in NHS-funded services” (NHS Improvement 2016).

This latest framework highlighted gaps in the 2014 NHS ‘5 year forward’ publication¹⁴ and suggested four critical capabilities for leadership that require five prerequisite conditions under which to succeed. The four critical capabilities are below and the five conditions related to these capabilities can be seen in figure 1.4.

- Developing systems leadership skills.
- Building improvement skills.
- Developing compassionate and inclusive leadership at all levels.
- Managing talent.

¹⁴ <https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf>



Figure 1.4 Diagrammatic representation of the 5 conditions of leadership that underpin the four critical competencies. Common to high quality systems that interact to produce a culture of continuous learning and improvement (NHS Improvement, 2016).

There are, however, limitations in the use of such competency frameworks. In line with current thinking in education and assessment the management and leadership literature suggests that ‘ticking the competency box’ is not enough. Neither simply possessing certain personal qualities or traits, nor being able to achieve a set sum of competencies is sufficient to mark a person as effective at leadership or being a leader (Alban-Metcalfe & Alimo-Metcalfe, 2013; Alban-Metcalfe & Alimo-Metcalfe, 2009; Bolden & Gosling, 2006; Kirkpatrick & Locke, 1991; Holmboe *et al.*, 2010; Monrouxe *et al.*, 2014; Van der Vleuten & Schuwirth, 2005; Schuwirth & Van der Vleuten, 2011). Effective leadership functions are more about how they are performed, than who performs them (Künzle *et al.*, 2010), and simply knowing what to do compared to

actually doing it are also seen as very different (Nienaber, 2010). Therefore, while competency frameworks remain popular, the literature suggests that something additional is also required.

Throughout the documents in this review there are a number of competency based models of leadership (NHS, 2010; GMC, 2012; NHS, 2012; NHS, 2013; GMC, 2015; NHS Improvement, 2016). Many others also suggest that leadership requires merely a specific set of skills or abilities (Germain & Cummings, 2010; de Zulueta, 2015; Holm & Severinsson, 2014; Khoshhal & Guraya, 2016; Künzle *et al.*, 2010; Morison & McMullan, 2013; Moore *et al.*, 2015; Sims *et al.*, 2015; Willcocks *et al.*, 2013) even though it has been recognised that the *“competency approach.....only reflects a fragment of the complexity that is leadership”* (Bolden & Gosling, 2006 p147). The competencies reported to be required are many and varied. They include problem solving and decision making, to creating and communicating a vision; remaining calm under pressure to being creative; being experienced and competent, to being supportive and empathetic. Boyatzis' (2008) 'competency clusters' (emotional, social and cognitive intelligence) are more linked to current process thinking than many of the other frameworks, therefore providing a more clearly defined construct to base the competencies on, and this is discussed later in the section focused on 'Emotional Intelligence'.

So while different authors recommend diverse and multiple competencies that they report as related to leadership, there remains no clear consensus of what these are across authors or contexts. Neither is there evidence to show that demonstration of such competencies alone is sufficient to be successful at leadership.

1.5.6 Models and theories of leadership.

Multiple models and theories of leadership exist, most being variations on the above concepts or themes. They are often related to the most popular theory of leadership at the time of development or the political and social situation or the researchers' own work and ideas. The medical literature mirrors the generic literature regarding the generally accepted temporal course of ideas on leadership models and theories (Brocklehurst *et al.*, 2013a; Hardacre *et al.*, 2011; Nicolson *et al.*, 2011; West *et al.*, 2015; Yukl, 1989; Yukl, 2012; Yukl, 2013). This trend is concisely summarised by Alban-Metcalfe & Alimo-Metcalfe (2009) and depicted in figure 1.5.

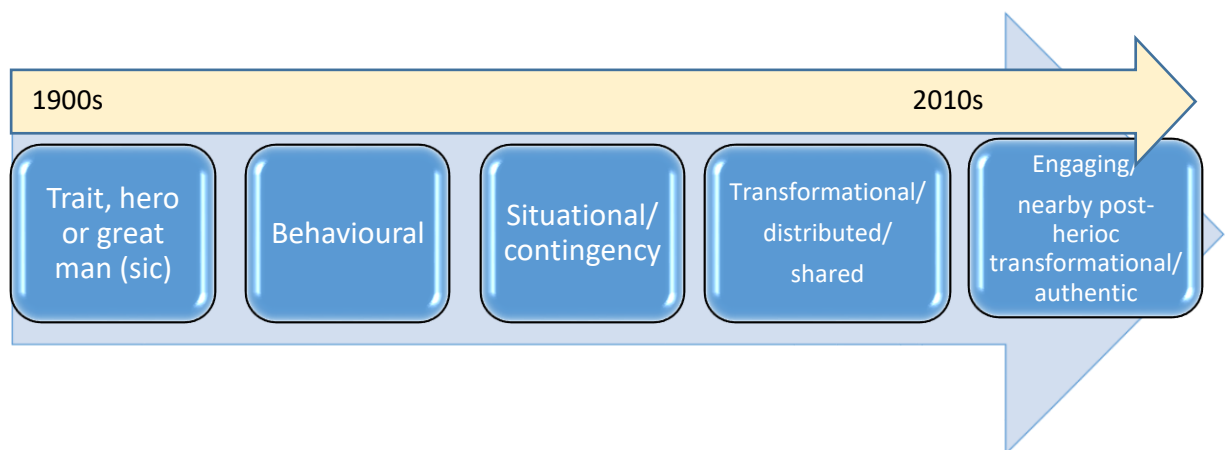


Figure 1.5 Timeline showing progression of leadership theories over time (adapted from Alban-Metcalfe & Alimo-Metcalfe (2009))

The development and temporal transition has not been a smooth or linear process, nor has the development of one theory necessarily fully negated the previous ones. However, the general trend is from leaders being “*born not made*” via inherited traits of greatness (Judge *et al.*, 2002; Kirkpatrick & Locke, 1991) to the current thoughts that everyone in an organisation shares the roles and duties of leadership; subscribes to the vision and direction; and takes a fair share of responsibility; that is,

leaders are made not born (Alban-Metcalfe & Alimo-Metcalfe, 2013; NHS Improvement, 2016; Storey & Holti, 2013; Holt, 2008; Adair, 2009). In short the trend is from leaders to leadership.

1.5.6a Trait, hero or 'great man' (sic) theories.

The original 'great man' theories of leadership assumed that leaders inherited everything they required to be a leader and that leaders were 'born not made' (Judge *et al.*, 2002; Kirkpatrick & Locke, 1991). Trait theory, while still suggesting that the innate qualities of a person (usually men at that time) were what made them an effective leader, recognised that these traits need not just be inherited - they could also be acquired (Kirkpatrick & Locke, 1991). Trait theory assumed the position that leaders were 'different' to other people, and had some distinctive characteristics, but there were significant challenges to supporting these theories and coming up with a definitive list of what these traits actually were (Judge *et al.*, 2009; Lord *et al.*, 1986). Reviews of trait theories have both supported, and totally refuted the idea that leaders have some special qualities that impact their ability or effectiveness to become and remain effective as a leader (Lord *et al.*, 1986). There is some suggestion that 'the big five' traits have some implication in leadership, with extraversion, conscientiousness and openness to experience being positively linked; neuroticism being negatively linked; and agreeableness showing variable association (Judge *et al.*, 2002; Judge *et al.*, 2009; Künzle *et al.*, 2010). Other traits that have been positively associated with leadership include intelligence, dominance, masculine-feminine balance, drive, motivation, honesty and integrity, self-confidence (including emotional stability) and cognitive ability (Judge *et al.*, 2009; Lord *et al.*, 1986). Charisma, creativity and

flexibility show weaker association but have still been linked to leadership (Kirkpatrick & Locke, 1991; Lord *et al.*, 1986).

The history of trait theories is embedded in a history and culture where men were normally associated with work and business roles, and women with homemaking and nurturing (Jonsen *et al.*, 2010). This historical and cultural male dominance is similarly reflected in healthcare leadership. The previously mentioned masculine-feminine balance noted the need for balance in certain traits: aggression, decisiveness and outward signs of emotion (Lord *et al.*, 1986). The impression of male superiority has even led to new vocabularies (Choo *et al.*, 2018). The idea that having male traits is more akin to being an effective leader is inculcated by many job roles originally having been understood and created by men for men; societal and cultural agendas still expecting gender differences in performance, by male and female workers; and second generation implicit gender bias (Opoku & Williams, 2018; Gill *et al.*, 2008). Yet if female leaders demonstrate assertiveness or other stereotypically 'masculine' traits, they are often harshly criticised by male and female colleagues alike (Jonsen *et al.*, 2010; Opoku & Williams, 2018). Diverse teams demonstrate more difficulty in communicating, and this has often been attributed to gender, although it has been reported that all female and all male teams are less productive than diverse teams providing there is effective management (Kyriakidou 2011; Vanderbroeck & Wasserfallen, 2017). This does suggest the issue is one of effective communication rather than a gender issue. The ongoing gender debates are multi factorial and outside the remit of this chapter; suffice to say that there is no evidence to suggest what such masculine and feminine traits actually are, let alone that they are fundamental or even linked to effective

leadership. The issues still appear to be prevalent in healthcare leadership conversations¹⁵ and trait theories are still referred to in studies from stage 3 of this review (Morison & McMullan, 2013; Sharma, 2010). This 'old-fashioned' way of thinking about leadership and the fact that it is still being circulated as current thinking, may exert a negative influence on the behaviour of individuals within such professions, and be supporting some of the issues already highlighted.

Along with the lack of empirical evidence effectively linking personality traits with leadership, there is also the caveat that relates to the 'dark side' of personality traits. The same traits that appeared to create the efficacy of the leader in the first place, can cause negative issues including manipulation, blind obedience in followers, excessive personal and self-serving power gain motivation, hasty decision making, feelings of being indestructible, over-dominance, follower insecurity and passivity, pride and insensitivity (Ciampa 2016; Judge *et al.*, 2009; Storey & Holti, 2013). These are the dark sides of the so called 'bright' leadership traits and dark traits themselves have both bright and dark sides (narcissism, social dominance, hubris, Machiavellianism) which can negatively influence the leadership process (Ciampa, 2016; Judge *et al.*, 2009). Uhl-Bien *et al.* (2014) reported for example, that *"it is naive to believe that charismatic leaders can engage in self-reflection, self-monitoring and feedback seeking in ways that can manage the deleterious impact of charisma ... followers need to recognize and play a more active role in avoiding the pitfalls and abuses of power that can come with charismatic leadership"* (p92).

¹⁵ <https://hbr.org/2018/10/fixing-the-gender-imbalance-in-health-care-leadership>; <https://hbr.org/2018/06/whats-holding-women-in-medicine-back-from-leadership>

Trait theory has been judged as being too simplistic and failing to take into account any contextual or situational factors (Judge *et al.*, 2009; Lord *et al.*, 1986).

While numerous personal qualities and traits are cited in individual studies and models purporting to relate to leadership, the overarching feeling is that while the individual does matter, it should be noted that; *“traits alone are not sufficient for successful business leadership - they are only a precondition. Leaders who possess the requisite traits must take certain actions to be successful”* (Kirkpatrick & Locke, 1991 p49).

1.5.6b Behavioural theories of leadership.

Following the initial discrediting of trait theories, there was a change in direction of the literature - which started to look at actions associated with leader activity and behaviour, irrespective of who the leader was or how they were performing. The concept and arguments around the use of behavioural competency frameworks has been highlighted, however, there are still many models and theories described throughout the papers in this review that are based on such behavioural concepts. The most often cited across this literature is that of transactional leadership. Details of studies and their linked theories can be found in APPENDIX 1B and for a summary see table 1.5 (p 84).

Transactional leadership originally developed by Weber in 1947 was refined and expanded by Burns (1978) and Bass & Avolio (1990) multiple times to develop it from the original conception of a continuum of behaviour, into the transformational and transactional theories more commonly talked about in the more recent literature (Avolio *et al.*, 1999; Avolio & Bass 1995; Bass 1990; Bass 1997; Burns 2012; Judge & Piccolo, 2004). Bass and Avolio’s original theory included 3 types of leadership

behaviour – one task oriented (monitoring), one relational oriented (recognising) plus an additional factor of the communication of contingent reward. A more recent model of transactional leadership (Burns, 2012) consists of 4 sub levels:

- Contingent Reward
- Management By Exception Active (MBEA)
- Management By Exception Passive (MBEP)
- Laissez Faire (the lack of any demonstrable leadership behaviours).

Transactional theory is based on an exchange (transaction) between leader and follower. Leaders will provide something (a reward) in exchange for the followers performing/delivering a task or goal. Transactional leaders may monitor the work of their followers and look out for problems before they arise (MBEA) or intervene after a problem has occurred (MBEP). The contingent reward aspect of transactional leadership is consistently linked to effective leadership behaviour in meta analyses (Clarke, 2013; Judge & Piccolo, 2004) although results for transactional leadership as a whole are inconsistent (Storey & Holti, 2013; Yukl, 2012). Transactional theory has been a popular approach within healthcare generally and is frequently cited in NHS and healthcare policy documents. This may be because it is a relatively simple concept to align with policy and to use for training.

Literature has departed from these behavioural, transactional theories towards Transformational Leadership or a combination of the two differing approaches (Dickinson & Ham, 2008; Nicolson *et al.*, 2011; Gilmartin & D'Aunno 2007; Cummings *et al.*, 2010; Cameron *et al.*, 2012; Walsh *et al.*, 2015). Transformational Leadership is discussed fully with the 'relational' theories in section 1.5.6d.

In 2010 the Health Foundation report utilised the Indicators of Quality Leadership[®] framework (IQL[®]) to identify and rank 120 leadership behaviours (Hardacre *et al.*, 2011), and in 2016 the FMLM published their latest ‘Leadership and management standards for medical professionals (2nd edition)’ detailing 48 effective leadership behaviours under seven sub headings allegedly suitable “*across all career levels*” (FMLM 2016 p1). The validity of competency frameworks, however, has been seen to be only part of the story. It therefore leaves only to reiterate that this type of overly simplistic view which advocates behavioural theories as suitable underpinnings for the complex phenomenon that is leadership, is seen as too one-dimensional, and that leadership is more than simply ‘performing’ a behaviour or task (Bolden & Gosling, 2006; Kirkpatrick & Locke, 1991). This dilemma led on to work connecting how an effective leader might alter their behaviour depending on the precise situation they found themselves in and the development of the so-called ‘contingency’ or ‘situational’ theories.

1.5.6c Contingency or situational theories.

Contingency theories developed out of the need to incorporate the influence of different elements of a situation or context that a leader may find themselves in, as moderating factors of their behaviour. “*Theorists have looked at this from a number of perspectives, exploring both the influence of contextual factors on leadership and the influence of leadership in shaping context*” (Hartley *et al.*, 2008 p13). These “*situational moderator variables*” (Yukl, 1989 p254) can be initiated by the leader themselves, the team, the relations with team members and others, the environment – local, distant and/or political, and the task in hand. There are various situational theories and the

two cited within this review were LMX and situational theory. These are summarised in table 1.4.

Many of the contingency models are used for, and within, popular leadership and management forums and independent, privately funded industry and business leadership development activities. They are relatively quick and simple to administer as heuristics to support individuals to identify where problems may be coming from within their leadership or work situations.

Table 1.4 Summarising LMX and situational contingency theories.

Theory	Main moderator variables of leader behaviour	Initially proposed by
Situational Theory	Leadership style (S1-4): directive - coaching – supportive - delegatory (telling, selling, participative, delegating) Maturity level of followers (M1-4): committed/uncommitted &/or competent/incompetent <ul style="list-style-type: none"> • low competence:low commitment – directive • low competence:high commitment – coaching • high competence:low or variable commitment - supportive • high competence:high commitment- delegatory 	Hershey and Blanchard 1969
LMX Theory (Leader-Member-Exchange) or Vertical-Dyad-Exchange Theory	In groups and out groups (formed via dyadic relationship between leaders and followers that maintains the leader’s leadership status). Expanded to include leaders upward relationships	Dansereau, Graen, and Haga 1975 Cashman, Dansereau, Graen, & Haga 1976

With the development of contingency theories from the late 1990s into the new millennium, many researchers also started to concentrate on the influence of the team member or 'follower' on leader effectiveness. The need to include team members had already been acknowledged in relation to mitigating against the dark sides of trait theories as well as how leadership was perceived. Now it was realised that through periods of change, organisations needed to take the followers with the leader. This gave rise to the next generation of leadership theories; the relational theories. In the UK the NHS had undergone tremendous change with the implementation of the 'hospital managers' who did not necessarily come from a healthcare background, and changes to primary care funding streams moving from central allocation to local commissioning¹⁶. Constant changes to roles, structures, names, and funding, in both primary and secondary care, made the need to bring followers along with the decision makers fundamental. Relational leadership theories were seen to be a significant step in facilitating this process.

1.5.6d Relational theories: transformational, distributed, collective or shared.

Relational theories are underpinned by the need for those in leadership positions to relate not only to their colleagues (or 'followers') but also to the internal and external environments that they find themselves in. These theories started to address the contextual and dynamic nature of leadership, and the multi directional effect of influencing factors. They provide the largest area of leadership theories cited within the literature included in this review. Of these, **transformational theory** is the most commonly discussed within the healthcare literature, first described by Bass in 1990

¹⁶ <https://www.kingsfund.org.uk/publications/what-commissioning-and-how-it-changing>

and based on Burns' original 1978 concept of transactional and transformational theories being at either end of a continuum (Judge 2004). Transformational theory has undergone revision and refinement by Bass and Avolio with the development of the multifactor leadership questionnaire (Avolio *et al.*, 1999) and analyses and evaluations on multiple levels (Avolio & Bass, 1995; Bass 1990; Bass 1997; Hater & Bass 1988). It is a popular theory within healthcare and in recent times in the NHS "*considered [to be] the most influential theory guiding health care leadership*" (West *et al.*, 2015). It is about changing the behaviours of followers and organisations through influence rather than power and authority, and it focuses on the higher order needs of followers in addition to basic contingency or reward (Avolio & Bass, 1995; Epitropaki *et al.*, 2016; Judge & Piccolo, 2004). In the NHS policy context it seems to have much to do with keeping the workers 'onside'. Certainly, within the NHS, the response to the changes outlined above was often less than positive with funding shortfalls and staff shortage being major impacts. The need to keep staff engaged and aligned became increasingly important (Addicott *et al.*, 2015; NHS Improvement 2016a).

One of the purported effects of Transformational Leadership is that followers and leaders are all able to achieve more than they thought possible (Avolio & Bass, 1995; Bass 1990; Hater & Bass, 1988). In times of constant and unprecedented levels of change and fiscal constraints this is a highly sought after outcome. There are four recognised dimensions to Transformational Leadership:

1. Idealised influence.
2. Inspirational motivation.
3. Intellectual stimulation.

4. Individualised consideration (Bass 1997).

Although the transformational model gives consideration to followers, it still has a very hierarchical, authoritative leader-centric view. This then comes with all the risks previously discussed in relation to considering individual leaders as opposed to leadership. Transformational Leadership can be seen to be closely linked to charismatic or inspirational leadership trait theories, with its focus on how an individual leader can use inspirational motivation and their personal charismatic qualities of idealised influence to motivate and inspire followers (Avolio *et al.*, 1999; Bass 1997). The additional dimensions of leader consideration for and of the individual follower to “*assess their moves and satisfy their needs*” (Nicolson *et al.*, 2011 p24) may go some way to mitigate against this. Nonetheless, the potential manipulation and negative influences associated with the ‘dark side’ of charismatic or inspirational trait or relational leadership theories are still a risk.

Additionally, with this recognition that followers are important, and building on the transformational leadership model, the literature started to advocate the virtues of **shared, distributed or collective leadership** (Cullen *et al.*, 2014; West *et al.*, 2014; Brewer *et al.*, 2016). Shared leadership is the second most popular theory that the combined literature of this review aligned to. To engage people throughout an organisation in decision making processes and link their own objectives to organisation level objectives and goals; collective or shared leadership spreads the leadership positions throughout and across an organisation. This is reported to lead everyone to take responsibility for the success of the whole organisation not just the success of their own role. Such leadership still maintains a formal hierarchy, but the leadership at

any moment is dependent on the situation and task in hand and “*power is situationally dependent on who has the expertise at each moment*” (West *et al.*, 2014). Collective and transformational leadership theories have been reported as the keys to unlock and generate cultural change in the NHS (Nicolson *et al.*, 2011; West *et al.*, 2014).

Consideration, however, still needs to be given to the follower reaction to shared leadership practices (Carsten *et al.*, 2010; Muethel & Hoegl, 2013). That is, how will team members feel about one of their colleagues taking the leadership role? Both the perspective of the leader and the follower as well as their relationship will potentially influence the success or otherwise of a shared leadership system (Carsten *et al.*, 2010; Epitropaki *et al.*, 2016; GMC, 2015; King's Fund 2012; Muethel & Hoegl, 2013; Storey & Holti, 2013; West *et al.*, 2014). “*It is now widely accepted that leadership cannot be fully understood without considering the role of followers in the leadership process.*” (Uhl-Bien *et al.*, 2014 p89). Leadership is considered an essential component of GDC learning outcomes (GDC, 2015) with followership embedded in outcome 11.2 where graduates must; “*demonstrate effective team working, including leading and being led*” (p26).

Influence attempts and influence acceptance are both important factors that take us back to the commonly accepted contemporary definition of leadership; that of a social process incorporating multiple reciprocating influences. This definition embeds the notion that the influence of the follower is therefore as important as the influence of the leader. However, in the same way that leadership contains numerous models, definitions and ideas, ‘followership’ presents the same issues (Carsten *et al.*, 2010; Uhl-Bien *et al.*, 2014; Epitropaki *et al.*, 2016).

What is true for all these relational theories is that where leadership is concerned *“the most important part is the people in it”* (Parris & Peachey, 2013 p377). As has been seen in the struggle for change and improvement, the so called ‘doubt-free’ transformational and charismatic leadership theories may hinder the *“humility and self-doubt that are appropriate for genuine inquiry”* (Storey & Holti, 2013 p21). These latter traits have been shown to be important in retaining and supporting individuals to acknowledge mistakes when they are made, thus enabling everyone to learn from them. The consideration of followership alone may also not be sufficient to mitigate against these. A combination of leadership styles might therefore maximise the potential of each of these theories, to give the best of all worlds. Collective (distributed or shared) leadership combined with transformational leadership practices are ones in which the individual:

- Is inspired to achieve more than they thought possible.
- Shares the leadership role throughout an organisation.
- Defines and develops collective or group change.

This combination initiated the move towards the most recent offerings of nearby post-heroic transformational leadership theories, including engaging leadership (Alban-Metcalfe & Alimo-Metcalfe, 2009; Alimo-Metcalfe & Alban-Metcalfe, 2008).

1.5.6e Engaging and compassionate leadership.

In contrast to all the theories that have gone before, engaging leadership is not just about who the leader is, what qualities they possess and what behaviours they demonstrate, but the integration of all those things with *how* they do it (Alban-

Metcalfe & Alimo-Metcalfe, 2009; Alimo-Metcalfe & Alban-Metcalfe, 2008; Alimo-Metcalfe *et al.*, 2008). It builds on the theory of servant leadership (Greenleaf, 1970) which itself is linked to a number of studies in this review (Bambale, 2014; de Zulueta 2015; Parris & Peachey 2013). While it may appear at first glance that the charismatic and transformational qualities of the leaders remain paramount, the reality is that the humility, openness and 'leader as servant and partner' are, in fact, the key features (Alimo-Metcalfe & Alban-Metcalfe, 2008; Hardacre *et al.*, 2011; Storey & Holti, 2013).

"Engaging leadership is based on integrity, openness and transparency, and genuinely valuing others, and their contributions, along with being able to resolve complex problems and to be decisive. It ...enables organisations not only to cope with change, but also to be proactive in meeting the challenge of change.... behaviour is guided by ethical principles and the desire to co-create and co-own ways of working with others towards achieving a shared vision" (Alimo-Metcalfe & Alban-Metcalfe, 2008 p16).

This idea is depicted in figure 1.6 taken from the 2008 CIPD report, "Engaging leadership: Creating organisations that maximise the potential of their people".

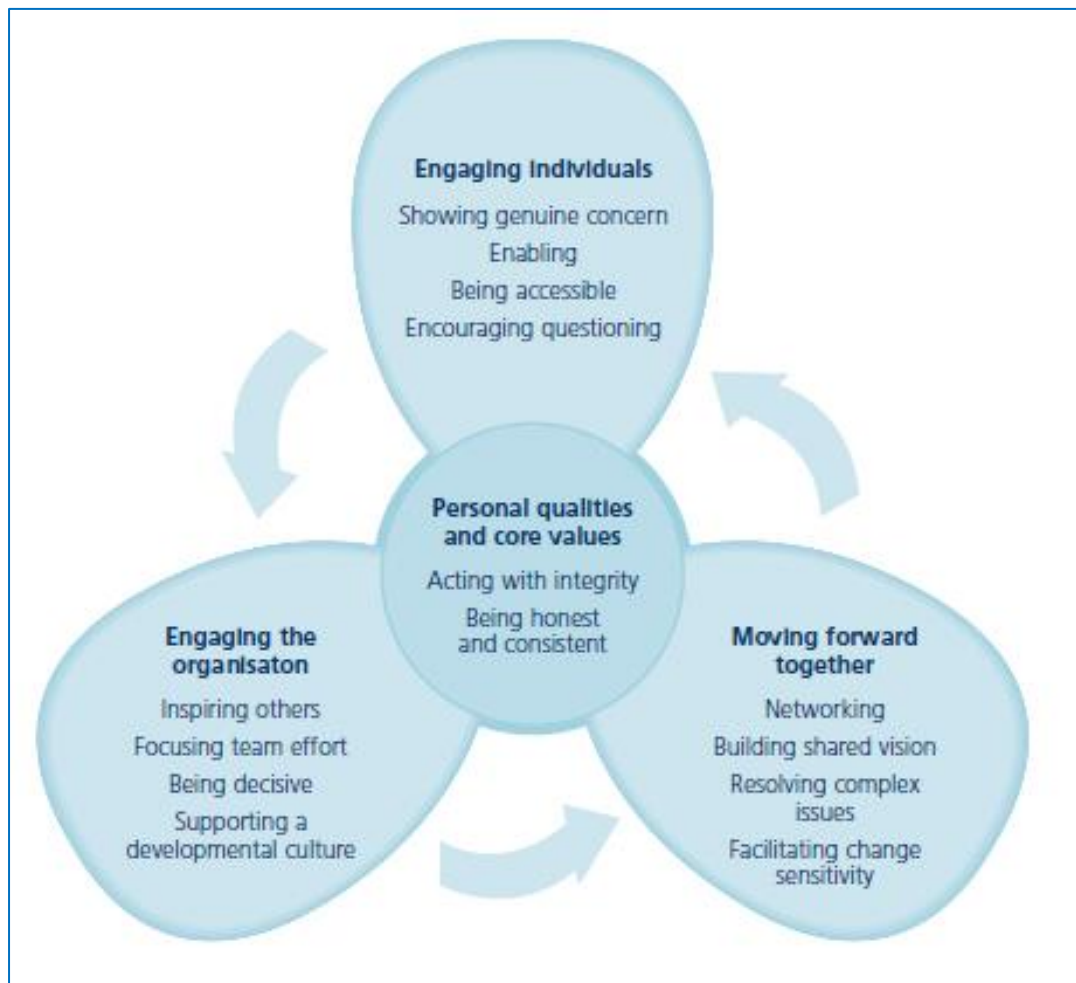


Figure 1.6 Diagram showing the key elements of engaging leadership from Alimo-Metcalfe and Alban-Metcalfe (2008).

Engaging leadership is here promoted as the answer to running a successful organisation and demonstrating effective leadership in today's diverse, inclusive, competitive and ever changing society. It is certainly a popular theory within the official NHS and healthcare governing bodies' publications found in this review (Hardacre *et al.*, 2011; King's Fund 2011; King's Fund 2012; Storey & Holti, 2013; NHS Improvement 2016). If engaging leadership were to deliver all it promises then it would certainly go some way to helping an overburdened and underfunded healthcare

system. However, as with the relational theories in general, the workers also have to be engaged or the whole idea is worth very little.

In addition to engaging leadership, compassionate leadership is a newer leadership theory being recognised as vital in today's NHS. Defined by the King's Fund on their website¹⁷; "*compassionate leadership means paying close attention to all staff and really understanding the situations they face. Then responding empathetically and taking thoughtful and appropriate action to help*". Compassionate leadership is reported to underpin an inclusive culture which delivers sustainable quality and efficiency improvements quickly, while also taking care of staff and the organisation itself. This is in addition to being indelibly linked to compassionate patient care (de Zulueta, 2015). The King's Fund report 'Caring to change. How compassionate leadership can stimulate innovation in health care' (West *et al.*, 2017) makes great claims about how this theory of leadership is fundamental to the NHS (for example, see pages 1,3,13,18). It incorporates elements of relational theories and reinforces the importance of 'crossing boundaries'. Although the 2016 NHS Improvement policy report (figure 1.4) is based on this theory, it is not widely found in the literature outside of the King's Fund publication, and is only mentioned in one further paper found in this review (de Zulueta, 2015) whose author reviewed the King's Fund paper.

Like compassionate leadership, while underpinning many of the current political and grand strategic (systems) level leadership documents, engaging leadership is less explicitly linked with the more academic and operational health care literature (Germain & Cummings, 2010). This may be for many reasons including that robust

¹⁷ <https://www.kingsfund.org.uk/courses/developing-compassionate-leadership-through-mindfulness>

academic research takes time and once completed there is often a significant time-lag before it becomes embedded from strategy to operation. A more cynical view might suggest that there was need for a 'quick fix' in the NHS, so that ideas and policies were developed within very short time spans to suit the pressing social and political agendas of the time, rather than being based in a more academic paradigm.

Relational theories, with their need for engaging with and demonstrating understanding, compassion and genuine concern for others, require some appreciation of 'feeling' – for oneself and another. Emotional ability and the acknowledgement that emotion may play a part in these reciprocal influence processes effecting leadership (Nicolson *et al.*, 2011; Rajah *et al.*, 2011) is considered essential, and reflected in the consideration of Emotional Intelligence.

1.5.6f Emotional Intelligence (EI).

Throughout the generic business literature, the concept of Emotional Intelligence (EI) as a prerequisite to leadership in addition to cognitive intelligence and IQ, is well supported (Codier 2014; Goleman 1998; Rajah *et al.*, 2011). The idea captured the imagination of academics, practitioners and policy makers and it was claimed that *"emotional intelligence accounts for up to 90 percent of the difference between star performers and average performers in senior leadership positions"* (Walter *et al.*, 2012 p212). EI was included in Boyatzis' (2008) competency model (figure 1.3) as a core competency, defined as *"the ability to recognise, understand and use emotional intelligence about oneself that leads to or causes effective or superior performance"* (Boyatzis 2008). However, like leadership itself, numerous models and definitions of EI exist. It has been defined variably as a set of skills, a personality trait, and

combinations of both. There is argument amongst academic communities, regardless of how it is defined, as to whether or not it actually exists, and if it can be measured (Rajah *et al.*, 2011; Walter *et al.*, 2012; Lewis *et al.*, 2005).

Within the popular business literature, Goleman (1995) suggests it consists of five elements: self-awareness, self-regulation, motivation, empathy, and social skills. From these he later developed his six styles of leadership: coercive, authoritative, affiliative, democratic, pace-setting, and coaching (Held & McKimm, 2011). Mayer and Salovey alternatively define EI from a more rigorous, bounded, academic perspective as a “*type of social intelligence that involves the ability to monitor one’s own and others’ emotions, to discriminate among them and to use the information to guide one’s thinking and actions*” (Mayer & Salovey, 1993 p433). They developed their own four level model describing that individuals high in EI can: pay attention to, use, understand, and manage emotions (Mayer *et al.*, 2008).

Generic work on management and leadership in organisations where safety is an issue (e.g. nuclear power plants), is based on the impact of leadership processes on predictable, inanimate machines and processes (Clarke, 2013; Holt, 2008; Yukl, 2013). The variables are often only in the teams managing or using them. It is only the EI of the individuals doing the work that therefore needs to be taken into consideration. This may also link to the same leader centric issues of trait theories where the dark side of a high EI might be used to manipulate others (Held & McKimm, 2011).

In healthcare the patient is definitely not predictable, is often highly animated, and throws an additional level of complexity into the picture – including the element of managing one’s own emotions while concurrently responding to the emotions of

others. The 2011 NIHR publication “Leadership and Better Patient Care: Managing in the NHS” devotes an entire section to emotion and the need for emotional intelligence in healthcare work (Nicolson *et al.*, 2011, p27-33).

Numerous authors explain the issue of emotional labour where individuals are required to manage their own emotions (emotional regulation) while concurrently portraying a specific, non-emotional reaction to their clients as part of their job (Haver *et al.*, 2013; Nicolson *et al.*, 2011; Held & Mckimm, 2011). However, *“managing emotions in this way.... comes at a psychological and emotional cost and the whole process would be problematic without attending to emotional intelligence”* (Nicolson *et al.*, 2011 p29). This emotional labour has been classified as deep or surface acting (depending on whether individuals actually feel the emotion they are intending to portray or not (Held & McKimm, 2011) and addresses the potentially leader centric view of emotional intelligence. This supports the notion of EI being linked to the relational theories of leadership in general and as an expression or underlying component of Transformational Leadership in particular (Akerjordet & Severinsson 2008; Cummings *et al.*, 2008; Akerjordet & Severinsson, 2010).

Overall EI is reported as being an important influence in both job performance and effective leadership. It can be defined as a trait or characteristic; or behaviour; or model, that implicitly forms part of many of the theories already discussed. Emotion, emotional regulation and emotional labour are complex areas of theory, but in today’s ever changing, competitive and unpredictable society, *“emotional regulation is considered a key competence associated with effective and good leadership and is essential in relation to how people deal with negative emotions in order to reduce*

potentially adverse outcomes" (Haver *et al.*, 2013 p287). When dealing with anxious patients who very often enter a surgery stating that they 'hate dentists', it is imperative that dentists will need to have elements of this emotional regulation. It will be interesting to note if or how this relates to their leadership.

Individuals cannot perform emotional regulation efficiently if they do not possess EI, and although it is a complex area to study and is not a popular inclusion in the healthcare literature (Akerjordet & Severinsson, 2008; Akerjordet & Severinsson, 2010). It may provide significant benefit to include it in leadership training to enhance individuals' awareness of behaviours and the emotions that are linked to them (Held & McKimm, 2011). The generic literature certainly attests that EI is an area of importance, for both leadership effectiveness and leader wellbeing (Codier 2014; Haver *et al.*, 2013). Although it is not purported as a leadership theory in its own right, it is embedded and included in many of the important theories said to be important in healthcare.

1.5.6g Authentic and congruent leadership.

These most recent leadership theories have been borne from similar issues that originally led to the development of the 'nearby post-heroic' or engaging leadership theories (that it is not always the 'what' actions of leadership occur but 'how' they are done that is the key) along with the need for EI. Authentic and congruent theories further suggest that leadership is not even about managing change or working to a goal, but "*it is about where the leader stands, not where they are going*" (Stanley 2008 p522) and that as such their existence and development "*can relate to sustainable performance*" (Avolio & Gardner, 2005 p334). Authentic Leadership, while labelled a

relational theory, purports to deliver more. It is based on the notion that leaders behave and make decisions that are in line with their own moral and ethical codes, and that it is this alignment that makes them appear as leaders, regardless of formal position of authority, role or function. It is described as *“being true to yourself; of being the person that you are rather than developing an image or persona of a leader”* (Lloyd-Walker & Walker, 2011 p383). Authentic Leadership has been studied in the nursing environment as to how it influences individual and environmental factors and why it is considered one of the most useful of all theories to relate to healthcare leadership (Alilyyani *et al.*, 2018). Follower influence is acknowledged as they need to be able to identify with the values and beliefs held and upheld by the ‘leader’ while also being influenced and inspired to be the most successful they can be; all the while also remaining authentic to themselves (Alilyyani *et al.*, 2018; Avolio & Gardner 2005; Gardner *et al.*, 2011). There are four key components to Authentic Leadership:

- Balanced processing (all sides and arguments are seen to be taken into account before making decisions. This is deemed more appropriate than the original term ‘unbiased processing’, which suggests that humans can be totally objective.)
- Relational transparency (the presentation of one’s true self to others and the ability to create authentic relationships.)
- Internalised moral perspective (self-regulation (element of EI) guided by internal moral standards. This becomes ‘authentic behaviours’ in later models.)

- Self-awareness (another essential ingredient of EI. Understanding of one's own concepts, beliefs and sense making of the world, how these manifest and impact others, and one's own strengths and weaknesses.)
(Avolio & Gardner 2005; Hopkins & O'Neill, 2015)

These are said to be the main components of leadership in people who exhibit sound relational skills, and authentic care and concern for their staff as individuals. They communicate honestly and openly to achieve positive outcomes for staff, patients and the organisation (Alilyyani *et al.*, 2018). Critiques of Authentic Leadership suggest that once again the theory leans toward the leader-centric, heroic theories, where dark sides of such characteristics can overpower, or be seen as arrogant and self-serving and may be used to manipulate. Writers specify therefore, that individuals need to demonstrate a positive moral perspective and psychological capital rather than just being true to themselves regardless of their value base (Avolio & Gardner 2005; Hopkins & O'Neil, 2015; Lloyd-Walker & Walker, 2011). Relational authenticity (Eagly, 2005) in place of relational transparency, has been offered as another antidote to the potentially one sided leader-centric view, to ensure the integration of the follower's response to such Authentic Leadership is realised.

The underpinning ethos of Authentic Leadership then, is that those in leadership roles use their positive moral perspective and psychological capital to enhance their self-awareness and self-regulation. This enables relational authenticity and their ongoing adaptation for positive self-development of themselves and others (Alilyyani *et al.*, 2018; Avolio & Gardner, 2005; Eagly, 2005; Gardner *et al.*, 2011; George, 2003; Hopkins & O'Neil, 2015; Lloyd-Walker & Walker, 2011; Luthans & Avolio, 2003).

Authentic Leadership has been critiqued further, however, as not being gender neutral and as being easier for males to achieve, due to the deeply embedded traditional historical and cultural male dominance of leadership (Eagley, 2005; Hopkins & O'Neill, 2015). Females in leadership roles should be made aware of this and given training or support to recognise the potential issues of remaining true to themselves, while also enabling others to trust them and then 'follow' them. Authentic Leadership is more than acquiring a particular style of leadership, however, as different styles will work for and with different people at different times for different reasons (that is, they will be contingent on the specific context). George (2003) suggests that integrity is one core and imperative value that underpins all Authentic Leadership:

"Integrity is the one value that is required in every authentic leader. Integrity is not just the absence of lying, but telling the whole truth, as painful as it may be. If you don't exercise complete integrity in your interactions, no one can trust you. If they cannot trust you, why would they ever follow you?" (p20).

Authentic Leadership has been the theory most closely linked to today's healthcare environment and linked to both EI and transformational leadership theories in this review.

Congruent leadership is based on similar principles to authentic *"where leaders are guided by passion, compassion and by qualities of heart. They build enduring relationships with others, stand the test of their principles and they are more concerned with empowering others, than with their own power or their own prestige"* (Stanley, 2008 p522). Congruent leadership has been reported to be the closest relation to clinical leadership where the leadership and clinical care values and beliefs are seen to

be reflected in one another and shared as authentic values of the individual (Stanley, 2006a). While the area of clinical leadership is not yet clearly and fully defined, the Authentic Leadership principles combined with the alignment of attitudes towards the professional clinical role and patient care, suggest that congruent leadership theory might underpin successful clinical leadership. This means that those in the leadership role must also be clinicians and be “*visible and present in the clinical area*” (Stanley, 2006 p140). It does not matter what their role is, or what level of formal authority they command; they are seen as leaders and are followed because of the “*attraction to the standard or banner they carry*” (Stanley, 2006 p140). Congruent leadership is seen as an extension of Authentic Leadership specifically contextualised to the clinical situation, and so all the critiques and discussion of Authentic Leadership will apply.

Authentic and congruent leadership theories support a shared leadership system and appear to integrate many of the relational theory ideas along with EI. They also embed the more recent idea of the need for crossing boundaries, and so developing a positive organisational culture where all are working together, regardless of role, level or perceived hierarchy. These are the most current leadership theories and models espoused in the literature and show how leadership is now the focus over the individual leader, although leadership is not just about doing activities, but being effective and inhabiting the role of leader in an authentic manner.

Multiple models and theories of leadership detailed here and in addition to those found in this review are available and used as the basis of popular business and academic training and development programmes. Overall there seems to be a divide between those theories included in policy and academic literature. Authentic and

transformational theories are the most linked with healthcare; but none provide an optimal model and all are subject to critique and criticism.

1.5.7 Links to existing theories.

When educating for leadership it would be helpful to know which, if any, theories are being espoused in the literature as more or less useful for healthcare generally and dentistry more specifically. This will also support development or acknowledgement of existing leadership training activities based on specific theories that might be accessed for dental education.

Appendix 1C identifies the papers that gave an explicit link to leadership theory within them, along with details of which ones they link to. Out of the 73 papers 23 made no explicit links to existing theory, theoretical frameworks or models of leadership. Of the remaining 50 there was no single theory or model of leadership that was used consistently, and still some papers are referring to leaders rather than leadership and trait and/or competency based models of leadership that are now outdated.

Table 1.5 summarises the range of theories linked across the three stages of this review. The paper numbers relate to their position in the Appendices. Papers 1-22 are stage 1 (the scoping policy review), 23-55 stage 2 (review of reviews in healthcare), and 56-73 stage 3 (the focused clinical dental review).

Table 1.5 Papers in the review and their link to existing leadership theories.

Leadership theory/model	Papers stage 1	Papers stage 2	Papers stage 3
None	4,10,14,15,18,20	24,26,27,28,30,33,36,40,41,45,49	56,61,67,68,72,73
Transformational	17	32,34,39,42,47,48,51,52,53,54	59,60,63,66,71
Transactional		34,39,47,53,54	59
Shared/collective	6,7,8,9,11,13,16,17,19	44,50	58,60,67,71
Emotional Intelligence	7	38,48,51,52	
Authentic/congruent	17	34,37,55	
Compassionate	21, 22	29	
Engaging/inclusive	5,6,8,12,21	46	
Kaiser Permanente	1,2,3		
Situational/contingency		23,34,54	58, 66
Social exchange/self determination		23,29,39	
Self-concept/self-schema		25	
Servant		29,31,35	
Followership		50	
Participative		43,46,53	
Citizenship & work behaviour		31	
Trait			57,60
Hofstede culture (individualism vs collectivism)			64,66
Existing competency & standards frameworks/models			62,63,64,65,66,67,69,70

Across the three stages of the review, transformational and shared or distributed/collective theories were found to be the most commonly linked. As can be seen, some of the more contemporary theories (shared, collective, engaging, and compassionate) still link mainly to stage 1 of the review: the overview of policy context, containing independently commissioned reports. Authentic Leadership, which is the theory that aligns most closely to these, is mainly found in the academic healthcare literature of stage 2. The focused review of the primary care and dental setting is still displaying some reliance on outdated and non-contemporary ideas of leadership as well as the use of simplified competency frameworks.

1.5.8 Links to existing concepts.

In addition to the links to existing theories and frameworks, the papers in this review were analysed regarding the concept of leadership that they implied or explicitly linked to. Details can be found in Appendix 1C. From the reviewed works, the concepts were identified and coded into the following themes:

- Specific behavioural or contextual competencies/elements required.
- Individual versus relational.
- Specific task, function or context needed +/- adaptability required.
- Dynamic social process: reciprocating influence & moderators.
- Working in partnership/across levels (crossing boundaries).
- Needs to be learned.
- Management versus leadership.
- How to lead versus how not to lead.
- Leader (person) versus leadership (process).

While many of the papers do conceptualise leadership as a complex process, 43 of the 73 still use a simple binary dichotomy within which to frame and conceptualise it, such as management versus leadership and individual versus relational. In addition many papers include behavioural, trait, skill or contextual/situational frameworks as their conceptual basis for discussing or investigating leadership, which seeks to oversimplify its complex nature as discussed already. As with the links to theory and models, there is no one single concept of leadership that underpins or aligns with the majority of the reviewed work.

1.5.9 Defining the aims of leadership.

Throughout the reviewed works there were multiple aims of leadership purported and 22 of the 73 papers reported no aim at all. Across the remaining 51, aims of leadership included: as a change agent, to manage and deliver services, to create culture and articulate vision, and to maintain or improve the work place and team dynamic as well as the quality of services for the benefit of patients. As with the definition, concept and links to existing theory, there is no single aim of leadership shared across the reviewed works, and many (33) of the papers documented multiple co-existing aims. For example the 2016 NHS leadership development framework suggests the aims of leadership are, *“to deliver systems level skills, improvement skills, compassionate and inclusive leadership, and talent management to create just learning cultures where improvement methods can engage colleagues, patients and carers, deliver cumulative performance improvements, and make health and care organisations great places to work”* (NHS Improvement 2016 p3). These are all worthy

goals, but are a tremendous and wide ranging responsibility to suggest leadership alone will be able to achieve.

Many of the papers with multiple aims include within them development and support for the clinical environment and individuals, along with support and driving of organisational change (Garrubba *et al.*, 2011). Setting the tone and culture of an organisation is entwined with resolving conflict, giving feedback and creating a non-judgemental learning environment for all, where debate and discussion of varying viewpoints is supported (Sims *et al.*, 2015). A number of the works make reference to these multiple aims of leadership being different at the varying organisational and leadership levels and that individuals needed to be comfortable working within such complexity, understanding it, and engaging with it at all levels (Swanwick & McKimm, 2011; Cameron *et al.*, 2012). Only one study defined which levels of leadership were aligned with which activities. The national (grand strategic) level was reportedly where conditions are created to consistently deliver high standards of care; set clear goals and standards to improve quality & patient safety; provide means or staff to deliver those goals within available resources. The organisation (strategic) level provides the conditions to give sufficient priority to patient care and safety aims. The operational (team) focus is on valuing and supporting staff, enabling them to work as team, ensuring their main focus is patient care, creating time to care and establishing well-structured teams (King's Fund 2013).

Where works did not differentiate the aim of leadership between or across specific organisational and/or leadership levels, it was described according to a variety of areas, relating to:

- 1) The people and managing talent (Massie 2015);
- 2) The organisation as an entity to build a legacy of success in an organisation or system (Parris & Peachey, 2013);
- 3) Creating culture (Jeon et al., 2010);
- 4) Processes to imagine, will and drive change (Nicolson et al., 2011), actively support effective teamwork (NHS 2010), make a difference to the care delivery process (Brown et al., 2015);
- 5) Outcomes. To ensure quality care and healthy workplaces (Mannix et al., 2013); to foster healthy work environment & create inspiring relationships based on mutual trust (Akerjordet & Severinsson, 2008); to influence well-being at work (Kuoppala et al., 2008); to improve the quality of patient care (Walsh et al., 2015); to drive service improvement and effective management of teams to provide excellence in patient care (Willcocks et al., 2013).

The review demonstrates that there is no shared aim of leadership either within or across the three stages of literature reviewed. There are commonalities and differences throughout the entire corpus of reviewed works.

1.5.10 Organisational levels of leadership.

Figure 1.2 illustrated the different organisational and leadership levels and how these relate to healthcare settings, and table 1.6 depicts the spread of these levels within the included papers of this review. Of the reviewed papers, 26 neither stated nor implied which organisational or leadership level they were situated in or referring to, and all but one of these works were from the second stage of the review – the

review of reviews in healthcare. The combined outcomes of the reviews themselves made no link to any leadership level, nor did they discuss whether the individual papers they included had made any links.

Table 1.6 Showing how each of the reviewed works relates to the different levels of leadership.

Organisational/leadership level in paper	Part 1	Part 2	Part 3
All	1,5,8,11,13,17	26,37,40,52,	65
Grand strategic (political/systems)	6		63
Strategic (organisation)	4,6,12,15,16,19, 21,22	35,45	57,59,60,64,67, 68,70,71,72,73
Operational (team/unit)	15	34,44	
Tactical (relational/dyadic)			
Individual	2,3,4,7,9,10,14, 18,20	35	56,58,61,62,66
None		23,24,25,27,28, 29,30,31,32,33, 36,38,39,41,42, 43,46,47,48,49, 50,51,53,54,55	69

20 of the reviewed works made explicit links to leadership at the organisational level; that is the leadership level for an entire hospital or dental practice. 15 related leadership to the individual level qualities of the clinician, independent of role, function or context and 11 explicitly stated that they were relating their finding to all levels. There were only three that claimed to investigate leadership at the clinical practice, patient facing operational level, and none of these were found in part 3 of the

review with the direct link to dental practice. Therefore none of the reviewed literature is related to leadership in dentists in their clinical role in a patient care, practice setting.

There was also a dearth of evidence (no studies) at the tactical level relating to relationships and yet relationships are likely to play a significant role in a patient facing situation. It is interesting to note that there were only two studies at the grand strategic political systems level where policy is created (national or local government roles) and much more at organisational level where the policies are put into practice. It should be further mentioned that significantly, many of the reports aimed at organisational level leadership are commissioned from a grand strategic level. This may influence the reporting or operationalising of outcomes in some way as there may be a pre-determined political agenda in what is commissioned and how.

1.6 Post review sensitivity analysis.

Following the discovery of the findings above, a post review sensitivity analysis was carried out. This was to discover the impact of removing the lower quality studies from the analysis (Higgins & Green, 2011). Due to the nature of the policy review documents in stage 1 of the literature it was not possible to rate them all. The QAR was only completed fully against the works in stages 2 and 3. In this post sensitivity analysis the impact of removing all the works reviewed within stage 1, the overview of policy context, was therefore also considered.

There were 15 low quality studies identified across 51 papers contained in the second and third stages of the review. This was equivalent to 29% of the second and

third stage corpus. By disregarding the entirety of the first stage of the review, this meant that just 36 papers were considered of the total 73 (49% of the original corpus) in the post review analysis.

1.6.1 Impact on citations.

This post sensitivity analysis had a significant effect on the citations as it removed some publications entirely: Dental Nursing, Academic Emergency Medicine, Saudi Medical Journal, Journal of Marketing and Management, Journal of Health Organization and Management, The Academy of Management Annals, The Clinical Teacher.

By disregarding the works reviewed in stage 1, it also removed all of the government and independent reports from the King's Fund, FMLM, GMC, NIHR, The Health Foundation, DoH, NHS, Stationery Office and Open University Business School. There was no significant impact on the spread of citations across the years covered by the review, however, with papers reviewed from 2008 to 2018 inclusive.

1.6.2 Impact on links to theory.

The post sensitivity analysis removed the links to compassionate leadership, engaging leadership, Kaiser Permanente, Organisational and Citizen Work Behaviours and trait theories of leadership. It left two links to authentic or congruent leadership theory. It is interesting to note that while engaging leadership is the main theory espoused within the overview of policy context literature, it has not yet emerged in the more academic literature in healthcare. It is also interesting to note that policy

does not appear to be based on evidence from the peer-reviewed literature, and relies heavily on independently commissioned reports.

1.6.3 Impact on concepts of leadership.

Overall there was little impact on the concepts of leadership defined across the review papers. Concepts crossed all three stages of the review, and no concepts were disregarded following post sensitivity analysis.

1.6.4 Impact on leadership level.

Post sensitivity analysis reduced the number of individual level studies included to just two, and grand strategic systems level to zero. Overall this reinforced the outcome that there is a dearth of evidence at most levels of leadership, and that the majority of evidence comes from the organisational or strategic level – that is, it is considered at the management level of a hospital, and not at the clinical or operational (patient facing) level.

1.6.5 Impact on the aims of leadership.

Post sensitivity analysis once again had little impact on the results of the aims of leadership, although it left only 21 included works which encompassed one or more aims within them. There persists amongst the remaining works a wide variation in the aims of leadership described below in table 1.7.

Table 1.7 Showing the multiple aims of leadership against the works they were found in following post sensitivity analysis.

Aim of leadership	Review paper number
To influence or manage team performance	28,44,46,51,57,66,68,71
To influence individual (performance, wellbeing, functioning, maintenance, support, motivation, relationships)	28,44,46,49,52,55,65,66,68,71
To enable task or goal attainment/completion	65,68,71
To drive, implement or maintain quality improvement (patient safety, patient care)	36,43,57,66,68,69
As a change agent	50, 63
To create culture	28, 52
Enable a healthy workplace	36,45
For organisational/strategic direction	28,68
Create structure	51
Complex problem solving	51
Implement processes	51
As a challenge processes	68
As an antecedent of safety behaviours	39
Define vision	58
Provide legacy of success for organisation	35

The aim of leadership is still largely reported to be dependent on an individual's role or leadership level (Cameron *et al.*, 2012). The only significant impact was to

remove the explicit report that leadership is needed at and across all levels of an organisation whether the aims are shared or different.

Overall the post sensitivity analysis had little impact on the results of this full review.

1.7 Conclusions.

This narrative review of the literature incorporating a three stage search strategy has shown that there is no clear, single or agreed definition of leadership; nor one theory nor model that is useful in every situation or eventuality. The aim of leadership has not been clearly defined across or within specific healthcare settings, including dentistry. Leadership is espoused, however, as being the underpinning answer to a multitude of issues across healthcare systems and reported to be needed at all levels: system (grand strategic), organisational (strategic), team (operational), dyadic (relational) and individual. This is not mirrored in the more academic literature. Neither is there evidence to operationalise leadership at any level.

The evidence for the shift from the importance of individual leaders to leadership processes does appear to be consistent, although there are still many writers talking about 'leaders' within these reviews (Brocklehurst *et al.*, 2013; Denti & Hemlin, 2012; Garrubba *et al.*, 2011; NHS 2010; NHS Improvement, 2016b; O'Riordan & McDermott, 2012; Willcocks *et al.*, 2013; Wong *et al.*, 2013).

While the reviewed generic and system level standards and reports are laudable and welcomed, in-depth high quality studies are needed to substantiate their multitude of claims at the operational (team) and dyadic (tactical) levels. Empirical

evidence is required to ensure that that the quality of patient care, staff performance, organisational maintenance and improvement of healthcare overall can indeed be enhanced through such leadership practices.

Leadership is seen as a process that can be conceptualised in numerous ways; it consists of multiple moderating variables and elements, all of which demonstrate reciprocal influence on one another to impact its effectiveness. It is a dynamic socially constructed process and leadership is only apparent in a group setting. This review highlights that leadership is context dependent, and a highly complex interactive social activity; but there is a dearth of evidence available relating to specific contexts, or including complex analytical frameworks for such activity. There is also the need to identify the overall aim(s) of leadership within the specific context in which it is being performed or studied. Many of the models and existing theories of leadership may well end up being useful in specific situations, however at this stage the evidence base is inconclusive about which might be useful where.

General Dental Council learning outcomes still require leadership to be assessed at undergraduate level for all future dentists. Drawing on the gaps outlined throughout this review and in particular noting the dearth of evidence relating to leadership for dentists within clinical practice, this study will now seek to provide empirical and robust data to explore such leadership. This study will therefore address leadership in the context of the primary care general dental practitioner (dentist) in general dental practice, using appropriate analytical tools and frameworks to situate and identify its complex and reciprocal interactive, dynamic nature as a social process. The results of this will be applicable and relevant to all in dental education to enable the required

educational development practices to be set against a sound evidence base. The phenomenon of 'management and leadership' in dentists in primary care practice will be explored, interpreted and explained and support development of a conceptual framework of leadership education for dentists.

Chapter Two: Methodology and methods

Exploring leadership in General Dental Practice.

“Why a video? Why not just talk to me?”

(Study participant)

2.1 Introduction.

An overview of the processes, underpinning philosophy, foundations and positioning of this study have been provided along with the narrative review of the existing literature. Detail and clarity will be added to those foundations in this chapter to describe precisely how they were used to create a robust and dependable research programme. In so doing, the very sensible question above, posed by a potential study participant, “*Why a video? Why not just talk to me?*” will be answered.

2.2 Study Aims.

The overall aim of this study is to describe, interpret and explain the phenomenon of management and leadership in dentists working in primary care practice. This material informs the design of a conceptual framework of leadership education for dentists in that setting. As described earlier, this will support the development of meaningful constructs for teaching, learning and assessment so that authentic and evidence-based criteria guide the training and appraisal of dentists.

2.3 Methodology in context.

Authors commenting on leadership research attest it is that imperative for empirical research to be conducted in context, to ensure that what is being explored is

relevant to the professionals undertaking work in that area (Gordon *et al.*, 2017; Yuki, 2013). This study took place in primary care dental practice settings and participants were primary care dentists.

‘Management and leadership’ is a recognised phenomenon or ‘consensual notion’ (Hammersley, 1992) in today’s society and culture. In this study context the regulatory body (GDC), through their rules, guidance and standards to assess and manage dentists’ professional registration, demonstrates its use and confirms its place within the intellectual ideology (GDC, 2015). While the concept itself is not explicitly critiqued or questioned within these governance documents, there are various individual outcomes under those overarching headings which are separated and distinguished from communication, clinical and professionalism outcomes. They range from the very specific (*‘you should display information about the members of your team (including their registration number where appropriate), in an area where it can be easily seen by patients’*) to the more nebulous (*‘recognise the significance of their own management and leadership role and the range of skills and knowledge required to do this effectively’*); from the practical and pragmatic (*you should ensure that all the members of your team understand their roles and responsibilities, including what decisions and actions have, and have not, been delegated to them*) to the theoretical and idealistic (*where appropriate lead, manage and take professional responsibility for the actions of colleagues and other members of the team involved in patient care*) (GDC 2015 p25-26).

Within this complex and multi-layered context then, subtle realism offers the *“possibility..... to generate explanations of the social world..... to fit practical*

purposes" (Banfield, 2004 p57). Subtle realism has been confirmed to be a useful paradigm for such research in healthcare (Duncan & Nicol, 2004).

As concluded in the previous chapter, the current view of leadership is as a dynamic social construct that only occurs within a group of people, is context dependent and contingent on reciprocal influence processes. Followers are as important as leaders, reinforcing the idea that "*leadership is a process... co-created in social and relational interactions*" (Uhl-Bien, 2014 p83). This view of leadership aligns with the 'subtle realist' ontological paradigm as well as the constructivist and interpretivist epistemologies.

The concepts and semantics of management and leadership were explored through the literature, and it was seen that the processes involved rather than the word used to describe them were what mattered. In this study context therefore, the term 'leadership' will be used as an overarching term for these processes.

Utilising an exploratory approach based in the Primary Care Dental Practice setting and taking a pragmatic view, the underlying post positivistic ontology alongside the interpretivist and constructivist epistemologies of understanding and knowledge being created, accept:

- 'Management and leadership' as a consensual notion or subtle realism.
- That knowledge of leadership within dental practice is constructed relative to the specific dental practice situation, through the social and relational interactions and cognitive meaning making processes of the people within or about that environment.

The research methods used reflect those assumptions.

2.4 Research Questions.

The review of the literature and the appraisal of the background information underpinning this study, enabled the study questions to be refined. There is one main and one subsidiary question that influence the chosen methodology:

1. How do dentists working in primary care dental practice identify and demonstrate management and leadership skills and qualities in their day-to-day work?
2. How might these skills and qualities be conceptualised into a framework to enable their use as constructs for valid and authentic teaching, learning and assessment?

To answer these questions, and in line with the philosophical foundations, it seemed reasonable to observe what happened in the day-to-day work of dentists within their primary care practice context. Through systematic data collection and analysis, including reflexivity (see section 2.6) throughout the process, the overall trustworthiness¹⁸ (Lincoln & Guba, 1985) of this study is enhanced.

To discover the meaning that the participants placed on their actions and incorporate these into the results of the study ensured that the interpretivist nature of the study was addressed. This enabled the 'why' of leadership behaviours to be identified and interpreted, in addition to the 'what' and 'how'. Investigating this situated production of leadership behaviour, in addition to relating it to the

¹⁸ Trustworthiness as described by Lincoln & Guba is described at <http://www.qualres.org/HomeLinc-3684.html>. It involves demonstrating: Credibility (confidence in the 'truth' of the findings); Transferability (showing that the findings have applicability in other contexts); Dependability (that the findings are consistent and could be repeated); Confirmability (a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest).

experiences of the participants, enhanced insight for later analysis (Holstein & Gubrium, 2004). It provided greater capacity for the abstraction, conceptualisation and interpretation of leadership traits than could be developed from the specific observational case explanation on its own (Eisenhardt, 1989; Maxwell, 2013).

2.5 Methodological framework.

The interpretative and constructivist methodological approach to this study was described in the introduction. Set firmly in this paradigm, the research combined a range of qualitative approaches: ethnography, case study, traditional ethnomethodology (Creswell, 2013; O'Leary, 2013; Silverman, 2010), as well as the relatively new approach of 'Video Reflexive Ethnography' (VRE) (Carroll *et al.*, 2008; Collier, 2016; Forsyth *et al.*, 2009; Iedema *et al.*, 2006; Iedema *et al.*, 2009).

Ethnography as method (based on Brewer 2000), also defined in the introduction, can be summarised as a process of data collection used to study people in their naturally occurring settings. It is used within the individual case study to explore the ways in which people talk, act and interact in their natural setting so that the social meaning in and of ordinary activities can be discovered (Brewer, 2000). Through this detailed observation and exploration "*the orderliness of activities undertaken by the participants will become apparent*" (Heath *et al.*, 2010 p66). The premise of ethnomethodology is to describe faithfully how participants **do** things, not how they see things or think about them; without prescribing meaning (Hammersley & Atkinson, 2007; Maynard, 1989; Silverman, 2006). Ethnomethodology, originally developed by Harold Garfinkel in 1967 (Garfinkel, 1984) seeks to describe the methods people use in 'doing' social life, "*On doing "being ordinary"*" (Sacks, 1985). This supports the focus on

the organisation of peoples' actions rather than what they are thinking, feeling or intending (Garfinkel, 1984). By focusing on the 'what' and 'how' of these interactions, however, the important interpretivist element of the 'why' (meaning placed on behaviours by participants) can be missed, which is akin to missing the content of what is said in an interview while managing to detail how the conversation is generated. It is the use of VRE that adds this interpretivist or naturalistic enquiry element (where the researcher seeks to tell the story from the participants' viewpoint (Creswell, 2013)) that is missing from traditional ethnomethodology (Silverman, 2006 p78).

VRE itself contains elements of multiple methods that include:

- The observation of the 'doing' from ethnomethodology.
- The exploration of meaning, thoughts and feelings of participants provided by the reflexive element.
- The use of video to locate the observation in time, to enable the data to be revisited, to link accurately the stream of words to the actions, and to enhance the reflexive element of the participants (Gordon *et al.*, 2017).

The combined use of these alternate perspectives enriched the underpinning comprehension of leadership for dentists, enabling the final conceptual framework to have drawn from both the 'how', the 'what' and the 'why' of leadership (Alban-Metcalf & Alimo-Metcalf, 2009). This supported the co-construction of knowledge between researcher and participants and led to it being ultimately more trustworthy.

Use of VRE aligns the methods with the underpinning philosophies and definition of ethnography, and emphasises that the study has been conducted within a well-

established and robust methodological framework (Brewer, 2000; Hammersley & Atkinson, 2007).

2.6 Reflexivity.

Just as it is imperative to hear the voice of the participant in the 'making of meaning' in data analysis to add trustworthiness (Lincoln & Guba, 1985) to the study, reflexivity (Watt 2007) is required to reveal and consider indications of the researcher's own impact. Reflexivity is different to reflection. While reflection can be seen as critically examining own performance in relation to a standard, reflexivity is using enhanced self-awareness to note everyday behaviours that are taken as given (Iedema, 2011).

Being a facilitator of the research as well as a member of the profession, experienced in the frontline clinical work of primary care dental practice, it would be easy to observe the work practices of clinical colleagues, and assume or guess as to their cognitive processes going on unconsciously 'behind the scenes'. There was a great risk of attributing my own meaning or interpretation through all stages of this study based on my intrinsic 'common sense' or taken for granted view of the environment. Additionally, being an academic member of the profession, and known to the participants through professional pathways, with potential to influence them as well as the situation, meant high levels of reflexivity through consciously heightened self-awareness and enhanced critical subjectivity (Watt, 2007) were necessary.

Critical subjectivity' is defined as:

“a quality of awareness in which we do NOT suppress our primary experience; nor do we allow ourselves to be swept away and overwhelmed by it; rather we raise it to consciousness and USE IT as part of the inquiry process” (Watt, 2007 p94).

It formed a central part of the reflexivity that was an essential condition in my role as researcher, throughout this study.

Reflexivity enabled me to become more aware of my assumptions and their impact on the situation or data. While my impact can never be removed entirely from the study, conscious and continuous reflexivity enabled it to be taken into account and explore its influence where necessary. Being a dentist afforded many advantages such as access to the environment, understanding of how the environment works, the language used etc. , so that I was able to ‘fit in’ with the practice teams and not create unnecessary or additional distractions from the study process.

This consideration of my dental status brings in the idea of positionality in my research (Pope 2005). Being an insider (sharing identity, language and experiential base with study participants) or outsider (a totally unfamiliar group) to the field being studied can pose challenges and have advantages some of which I have described above. The insider: outsider debate as originally discussed by Gold in 1958 (Allen, 2004; Pope 2005) deliberates that it is more helpful to consider it as a continuum from insider to outsider rather than as a dichotomous position. There is role confusion between ‘me’ as a dentist, ‘me’ as an academic and ‘me’ as a researcher so I am never truly in nor out of any group as I conduct my study.

It is likely that my position changed throughout the course of the study inter- and intra- participant, in line with evidence from the nursing literature (Bonner & Tolhurst,

2002; Borbasi *et al.*, 2005; Dwyer & Buckle, 2009) so that I was able to occupy a “*space between*” (Dwyer & Buckle, 2009 p60). This was contingent on many factors including my previous relationship with the participants, the make-up and particulars of each practice setting, and length of time I spent in the practice. The pros and cons of this tension have been well described (Cudmore & Sondermeyer, 2007), the salient point being that I recognised the potential for assumptions by all parties, and remained reflexive to my positionality and its impact.

My positionality also relates to my observer or participant status. During the filming in the surgery I remained as complete observer as I did not participate and was not present in the setting in any way. I observed later via the camera. In the VRE interviews I encouraged verbal participant interpretation when necessary to assist the setting rather than to fully participate in it. I was still an observer and was facilitator rather than participant. This participant vs observer model is also said to be on a continuum (Pope, 2005), and my position was again subject to change depending on each precise situation. As before, the important aspect of being aware of these continua, is to engage in reflexivity at the time and after the event, in order to remain open to the impact of this in the work, such as asking leading questions.

This blended methodological framework along with my ongoing reflexivity as researcher served to firmly locate the expertise about clinical practice with the practitioners and give voice to the individuals often located on the fringes of professional practice development. Their perspectives, often unheard in relation to the more dominant groups or discourses such as potentially disconnected researchers or

the GDC (Forsyth *et al.*, 2009), was therefore given opportunity to be heard more clearly.

2.7 Methodological assumptions.

The assumption when conceiving this research as an ethnographic study was that dental practice is the 'natural environment' in which the 'community' of dentists reside and interact and that the community and environment share constructs across the multitude of demographics. This is in line with much educational research that suggests that the study of a single classroom can be relevant to the wider educational community.

"Despite their diversity, individual classrooms share many characteristics. Through the detailed study of one particular context.....later abstracted summaries and general concepts can be formulated which may be found to be germane to a wider variety of settings" (Delamont & Hamilton, 1984 p19).

It is interesting to note here that the school in which the classrooms are set are not considered in this work, which is akin to not taking the specific dental practices into account in this study. The work was initially treated as a series of discrete case studies ensuring that data collection across the different sites were concurrent activities with preliminary analysis of each individual participant driving future collection and additional sampling strategies. It was noted early on that the specific context and influence of each different practice and the participant's position within it, was an imperative element of influence. The assumption regarding 'all dentists' in 'any practice' was therefore seen to be inaccurate, and so for analysis purposes the individual case studies were treated as discrete entities. Had this not been the case,

the specific influence of each individual dental practice community may have been ignored, and the resultant findings therefore, less meaningful and relevant.

Through using such an iterative, inductive approach the data were able to explicitly highlight where the constructs did not cross barriers between different practice settings, and therefore how this assumption was invalid. The use of this case study approach facilitated and clarified ongoing data collection and analysis methods, which in turn optimised results and ensured that the micro substantive¹⁹ theory produced was based in and could be clearly identified from, the case specific findings (Charmaz, 2006; Eisenhardt, 1989; Hammersley & Atkinson, 2007).

2.8 Methods.

Prior to undertaking the study in full, two pilot interventions in non-participating dental practices were conducted. Feedback from patients and staff in the first pilot practice was obtained before finalising the project paperwork (see Appendix 2A). The equipment and process ran as if the study was taking place, but the camera was not switched on. A full day was spent in the first pilot setting, talking to the staff and patients and collating their feedback and responses to the study proposal. From their input a short information sheet with script for the receptionists was devised (as the first point of call for patients with questions); it was confirmed that the patients were

¹⁹ A micro substantive theory relates to the single culture within a specific setting looking at one specific construct. In this case the theory was related to management and leadership in dentists working in the primary care dental practice setting. While it may be transferable to other dental settings or other clinicians working in healthcare teams, the theory itself will remain micro (only dentists) and substantive (working in primary care dental practice).

generally very happy to be involved; and a poster was created to display in the practice which contained my picture so people would be able to identify me. Patients and staff liked the fact that I would be there to answer questions while the study was running. Dentists said they forgot the camera was there due to its size, but they also knew it was not switched on, so that may have influenced their thoughts.

The second pilot intervention took place over a three hour morning period with everything running as it would, including the camera filming. This provided opportunity to have a full rehearsal with the equipment. The main practical issue was the battery life of the camera, which bleeped after a relatively short time. This led to ensuring subsequently that it was connected to a charger at all times so as not to disturb the dentist while they were working. As a result of the pilot being so successful, the dentist (and staff) were keen to take part in the study, and were therefore recruited immediately. I was able to remain in the practice and collect my first live data immediately following the pilot intervention.

2.8.1. Sampling.

Participants were dentists working in primary care practice covering a variety of demographics including time since qualification, experience in practice, gender, management level, type of governance structure (e.g. NHS, private, corporate, associate, principal), location and size of practice (e.g. rural, urban, single surgery, multiple surgery). This information is detailed in the demographic results in table 3.1 in the next chapter (p 142).

Purposive sampling (Silverman, 2006; O'Leary, 2013) was used initially to recruit five dentists. This sample size was determined to ensure maximal demographic variation, and in line with literature relating to recommended sample sizes in qualitative studies (Guetterman, 2015). Following an iterative theoretical sampling process (O'Leary 2013) early cross-case comparison highlighted that the areas of position in practice (associate vs principal) and type of practice (independently owned or run by corporate) would benefit from deeper exploration. Two additional comparative cases were therefore recruited to provide a more sufficient dataset to enhance insight and support abstraction, conceptualisation and theoretical saturation (Crowe *et al.*, 2011; Richards, 2009; Saldaña, 2013).

As this was a blended methodological approach and as analysis and data collection occurred concurrently, decisions were made continually on existing and future participant recruitment, remaining reflexive and responsive to the quality, scope, appropriateness, and usefulness of the emergent data and whether saturation was reached. Saturation occurs when all data has been fully analysed and with respect to the quality, completeness and amount of data, the information is sufficient and no new themes, knowledge, understanding or meaning are emerging (Crowe *et al.*, 2011; Eisenhardt, 1989; Martins, 2008; Richards, 2009; Saldaña, 2013).

It was important to ensure that 'superfluous sampling' did not occur (Guetterman, 2015 p15) which may have led to data losing depth and becoming repetitive, so reducing the overall quality and richness. It was also essential to not waste the time of participants, practice staff and patients, who were all voluntarily taking part. Reflexivity was used to account for the scope, topic and quality of the data, as well as

emerging findings, so that all data yielded the optimum amount of information to have the greatest impact on knowledge development.

2.8.2 Data Collection.

2.8.2a Data collection - video

Initially recordings were made of the dentists' clinical working while they saw patients in their surgeries. To **reduce** the 'Hawthorne effect' of participants acting differently when being observed (Adair, 1984), the equipment was small and unobtrusive (Go Pro Hero 5 Black©) and the researcher was not present in the surgery while filming took place. The recorded sessions always involved more than one patient encounter which may also have helped relax the clinician into their routine everyday practices and able to forget that they were being observed. Participants were shown how to switch off the equipment should they or the patient change their mind about consenting to the process being filmed.

Video is often used in health care environments to test compliance with tasks or routines; as a surveillance tool for trainers, assessors and managers; and to engender clinician's reflexivity by using it as a 'mirror' to help compare to and produce "*replicated copies of the norm*" (Iedema *et al.*, 2009 p298). These current uses are all based in the positivistic paradigm that best practice is always standardised. As has already been described, however, when creating lived ideology through articulation work it is worth recalling that "*standardisation cannot cater for all possible circumstances and risks*" (Iedema, 2011 pi83) and it is impossible for "*individuals' experiences to be divorced from the context in which they occur*" (Forsyth *et al.*, 2009

p216). As healthcare and its context become ever more complex, therefore, while this use of video may have some value during training, it may not provide the learning or understanding necessary in many educational, development or research situations such as this. There are limitations to using specific conversation or discourse analysis in determining non-verbal communications and visual nuances within audio only observation, and the use of video overcame this. The use of “*video as videography*” (Jewitt, 2012 p3) within this research methodology, therefore, was to explore those subtle and highly influential individual and personal impacts situated **within** the complex clinical setting (Carroll *et al.*, 2008).

Video based research as social research has been shown to exist as a multi-dimensional record that “*retains context and offers sequential recording*” (Jewitt, 2012 p6). Incorporating it into this study facilitated unique insight into what dentists themselves understand of what they do, as well as how and when they do it. This methodology therefore engaged real clinicians with the research and moved away from the managerial audit style, top down surveillance culture often experienced and previously described in this chapter (Iedema *et al.*, 2006). Video has additionally provided opportunity to address the important issue of work practices becoming routine and tacit through providing the opportunity and context to support recall.

The addition of a think aloud technique as described below, provided further insight into the participants’ unconscious understanding of what they felt they were doing in relation to management and leadership. The use of the think aloud technique as part of the video reflection was used to observe and interpret the “*otherwise*

invisible aspects" (Atkinson & Pugsley, 2005 p233) of complex clinical (in this case leadership) behaviour (Heath *et al.*, 2011; Atkinson & Pugsley 2005).

2.8.2b Data collection - field notes.

Non-clinical observations (carried out on the same day as the video recording for the convenience of the participant) supported a more traditional observation of the participant undergoing their routine non-patient facing activities in the practice (meetings, informal and formal interactions with staff). This permitted additional data relating to their leadership responsibilities in line with their potential roles as employers, employees, team leaders, practice managers, and team members; and potentially at a higher organisational/strategic level in comparison to the patient facing operational level of leadership (see figure 1.1, Chapter One) in the surgery (Howieson & Thiagarajah, 2011; Yukl, 2013).

Field notes were used to record these observations and related to the non-clinical environment, including documentation, physical space, interactions and other people. They were recorded in line with the traditional ethnomethodological approach (Garfinkel, 1984). To ensure they detailed how participants acted and behaved without inferring meaning, they were written with 2 main guiding principles in mind as observation took place:

- Noting what and how people were doing and/or trying to accomplish
- Noting how they made sense of the situation and any assumptions that were made within that (i.e. noting what was being talked **about** in addition to what was actually being said) (Emerson *et al.*, 2011; Fox, 2006).

The field notes were set out with columns with one for the description of observation and the other for memos and insights or thoughts/impressions that occurred at the time. They also contained some visual data (sketches, photos, descriptions of space) to confer the 'space allocation' of the environment and ensure description rather than impressions were noted. Concrete instances of what people did and/or said were recorded with verbatim quotes (Eisenhardt, 1989; Silverman, 2010) and observations were interspersed with any reflexive insights. This process was contemporaneous where possible (Hammersley & Atkinson, 2007) using colour coding and opposing pages as separate columns. An image of an example field note entry is presented in figure 2.1.

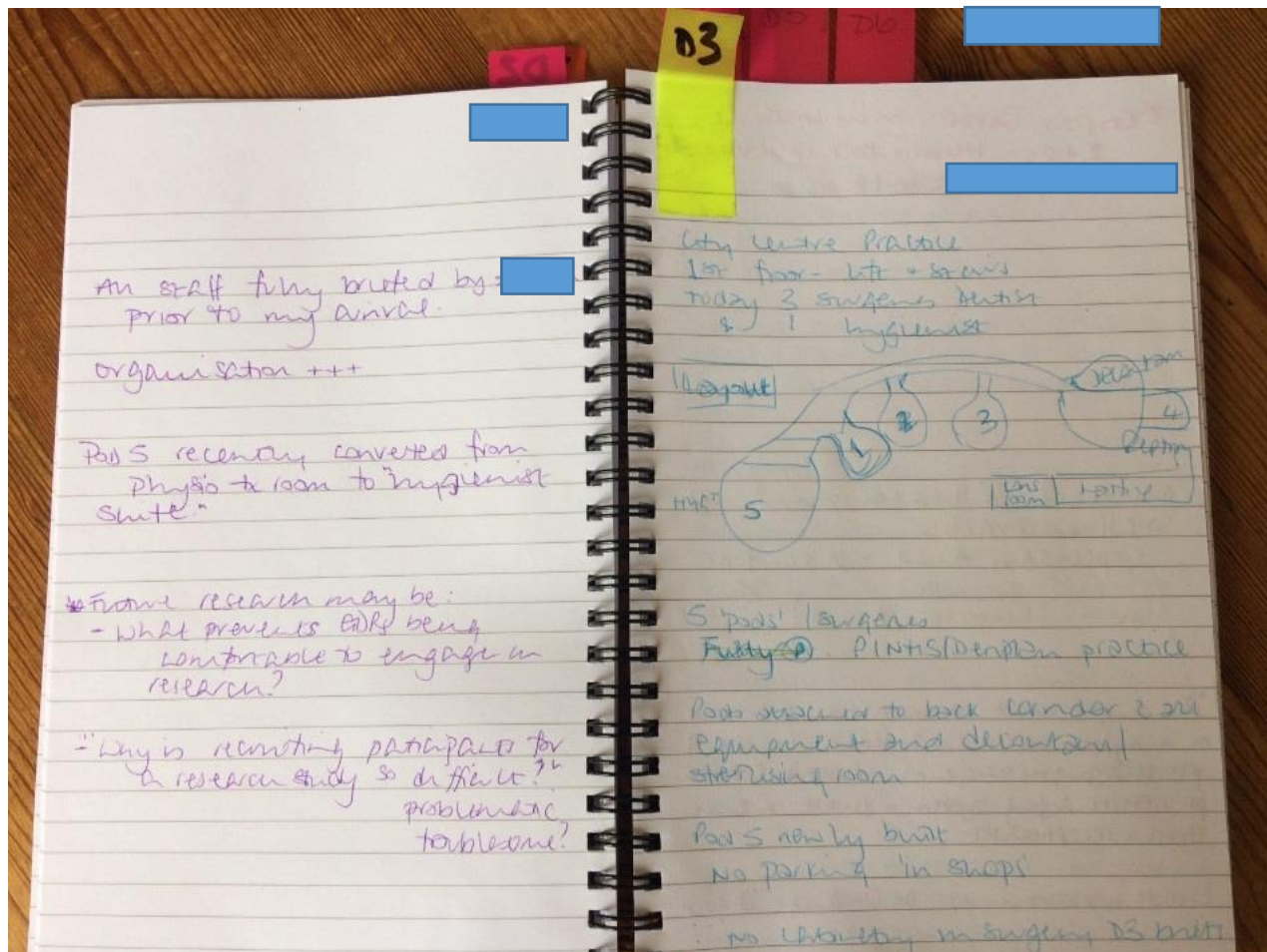


Figure 2.1 Image of field notes.

2.8.2c Data collection - video data management.

The full video data corpus of each participant engaging in their clinical work was edited into a series of short excerpts, no more than one hour 15 minutes long. Excerpts were chosen using purposive sampling techniques, including any evidence of concepts of leadership derived from the literature review; maximal inclusion of potential influencing factors; and maximal variation in the components of the observed clinical working practices of the participant. These final films of excerpts were shown to the participants in their recorded VRE session.

2.8.2d Data collection - recorded VRE session.

The final participant interaction was a recorded meeting where the dentist participant watched back the definitive edit of film clips. Using the previously introduced 'think aloud' method (Charters, 2003; Nielsen *et al.*, 2002) they reflected and debated on their understanding of events relating to their thoughts on leadership in their clinical work.

Traditional think aloud techniques encourage the subject to verbalise and vocalise a task as it is being performed in order to detect the higher order thoughts and processes that may not be visible. This can lead to issues where the technique either may detract from the task in hand, or alternatively where the complexity of the task in hand causes the subject to become silent (Nielsen *et al.*, 2002). It was clear that dentists could not be expected to comply with the traditional think aloud techniques of doing and verbalising simultaneously while treating patients. To overcome the potential issues of retrospective reporting, when the participants' thoughts may be more cognitive and intellectual rather than recalled and reflexive, video was used as

the catalyst to enable clinicians to stimulate recall of an event so they relived it (Cotton & Gresty, 2006). Used as a trigger for producing introspection after an event (Nielsen *et al.*, 2002) this is the underpinning premise of the VRE procedure (Forsyth *et al.*, 2009).

This combination of stimulated recall and opportunity for introspection, the 'mind tape' technique (Nielsen *et al.*, 2002), engaged participants with the data and supported them to highlight the depth and complexities of their own clinical work practices (Hostgaard & Bertelsen, 2012). This occurred through concurrent identification and analysis of their activities, in the context in which they occurred. Using this form of participatory research is said to support practitioners to be taken into a "*space of transformation*" (Iedema *et al.*, 2009 p293) and higher order thinking about their activities. They themselves then identified, critically appraised and conceptualised the taken for granted or unconscious behaviours they exhibited. Using this mind tape technique within the VRE framework enabled participants to revisit the data as required (Hostgaard & Bertelsen, 2012) and so reframe and re-apprehend day-to-day processes as their description, explanation, insight and interpretation were enhanced. The use of the pause, rewind and review features to revisit data enabled them to think about more abstract concepts relating to the processes they viewed themselves undertaking, so producing new knowledge about clinical practice (Iedema *et al.*, 2009). It also enabled the verbalisation process to catch up with the faster thought processes where necessary; as well as allowing member checking and review where necessary, as the utterances in think aloud were not always in sentences, and

therefore some degree of interpretation may otherwise have been required by the researcher in viewing (Charters, 2003).

A further reason for recording the VRE session was to enable noting of both verbal and non-verbal cues. Non-verbal cues are a potential sign that working memory is being overloaded as higher order thoughts are modified into words (Charters, 2003) and this was used alongside the surgery recordings and field notes to enhance later analysis. I was present in this session acting as facilitator, asking open questions to enhance critical thinking as a prompt when required (Cotton & Gresty, 2006 p49). There was no standard set of questions as the VRE session was an organic process dependent on the participant and their responses. Through my experience in the use of advanced communication for clinical care and education I was able to employ those skills to ask appropriate, non-guiding, participant centred questions during the VRE session.

Examples of questions asked during the VRE sessions are below. Questions were asked to prompt verbalisation of nonverbal cues; and to clarify meaning of verbal utterances:

- “You look as if you’re thinking something/have noticed something here – can you tell me about it?”
- “That’s interesting. Could you tell me more about that?”
- “So how do you think that has happened/come about/changed?”
- “Could you clarify what you mean(t) by that [action/word/utterance]?”

On occasion more specific questions were used when trying to gain a deeper insight or conceptualisation from provisional findings from previous cases.

- “Do you think [or what do you think] that has to with leadership?”
- “And has that [specified thing] just happened, or is it deliberate?”
- “And do you think that [specified thing] is important? If so, why?”
- “So are you doing that [specified thing] for them or you?”
- “Can you think what made you/makes you do that [specified thing]?”

Critical subjectivity, as previously described, was at the forefront of my mind during this session to ensure that presuppositions or theories were not being conferred onto the participant to ‘water down’ or ‘deform’ the data (Finlay, 2002). In direct contrast, specific disciplinary knowledge provided opportunity to ask appropriate questions to steer the conversation in a direction that it may not have been able to take without that input. It is reported that “*differences in disciplinary knowledge leads to differences in observed patterns of behaviours*” and that the “*understandings of different actors within and across events*” is essential when interpreting video observational data in this way (Baker & Green, 2007 p194). As researcher, I here became an integral element of the data production and analysis, and using critical subjectivity, remained reflexive to this both at the time and afterwards during further data analysis.

These case studies of the final seven participants led to over 23 hours of initial recordings, which were themselves purposively sampled to produce 10.5 hours of VRE data; an additional seven recorded VRE sessions (one per dentist) totalling eight hours 22 minutes; and more than 15 hours’ worth of field note observations from the non-clinical interactions.

2.9 Data analysis.

Analysis was carried out using third generation Activity Theory as both theoretical lens and analytic tool. Third generation Activity Theory is defined by the unit of analysis being the interaction and relationship between two or more individual activity systems rather than remaining at the identification of discrete individual systems (second generation) (Johnston & Dornan, 2015). This enhances the identification and understanding of multivoicedness and multiple perspectives inherent in complex activities and environments. It also optimises the role of contradictions as agents for change and development as they occur between and within different activity systems which in turn may create further impact on outcomes within networked systems. Leadership and clinical practice have both been described as complex activities within complex environments and therefore third generation Activity Theory provides a useful theoretical lens through which to illuminate their practices and uncover their lived ideology. Activity Theory has been used successfully to investigate distributed leadership in educational settings (Spillane *et al.*, 2001; Yuen *et al.*, 2016).

2.9.1 Activity Theory as the theoretical lens.

The basic unit of third generation Activity Theory is the Activity System (AS) (Edwards, 2011; Engestrom, 2000; Warwick Institute of Employment Research, 2011) as depicted in figure 2.2

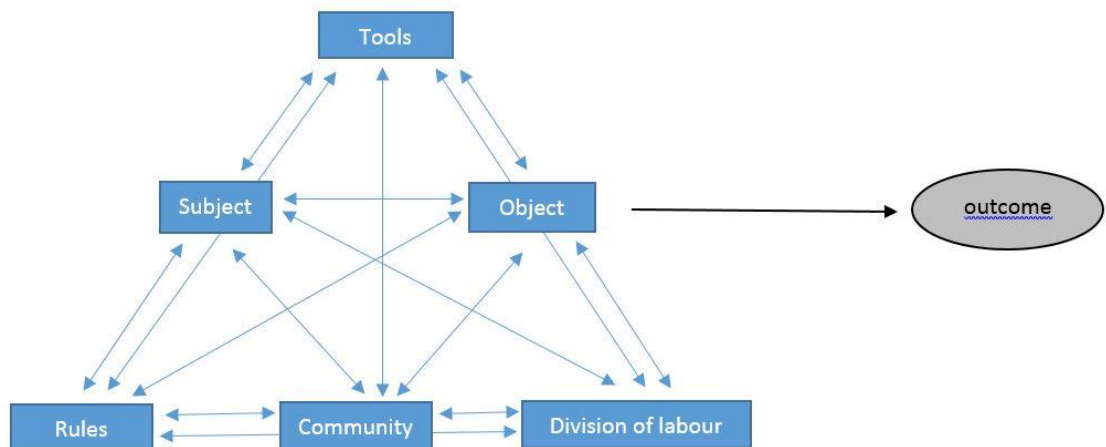


Figure 2.2 Depicting the reciprocal interacting components of an Activity System.

An activity system exists when a *Subject* (e.g. dentist) engages in an activity to achieve an *Outcome* or motivation (e.g. patient care) through work on, or with, an *Object* (e.g. patient). The Subject-Object interaction is facilitated by the use of ‘mediating artefacts’ which become known as *Tools* when used for, or integrated into, the activity (Hawkins-Waters, 2013). Tools can be items such as computer software and equipment, or cognitive strategies such as language. This tool mediated subject-object interaction occurs within a *Community* (e.g. dental practice or dental surgery). It follows accepted *Rules* (that govern how people act – e.g. cross infection protocols, GDC standards) and includes the *Division of Labour* (relating to others who share in the activity or environment during the activity e.g. dental nurse, receptionist). Rules can develop as the result of social conditioning, historical or cultural influences, or due to explicit or implicit governance influences, e.g. laws relating to confidentiality do not permit conversations about appointments or detail of treatment with anyone but the patient without consent. This means, for example, that if a family member calls the practice to confirm an appointment for another person, or comes into the practice

asking if the person is still in the surgery, staff are not allowed to divulge that information. The Division of Labour may include control, power or role influences, and relate to individuals with a shared **or** contradictory purpose to the activity, including dental nurse, receptionist, lab technician. Each of these areas is influenced by, and in turn influences the other. The fact that each aspect of the activity system has developed through history within the cultural and contextual landscape and setting, leads to this context being therefore embedded in the activity (Edwards, 2011; Hashim & Kones, 2007).

2.9.1a Operations, actions and activities of activity systems.

Within an activity system and its related activity, such as reading a computer screen or giving a dental injection, subjects undertake Goal Directed Actions (GDA). Each GDA in turn consists of a series of 'operations' such as turning away from the patient, or assembling the local anaesthetic syringe with needle and local anaesthetic solution. Activities, GDAs and operations form a hierarchical structure as depicted in figure 2.3, with each adjacent level influencing and being influenced by the other in a reciprocal manner.

Activities, GDAs and operations all have a related cognitive underpinning (which may be explicit or implied) and when viewed in isolation may be assumed to stem from various motivations and undertaken towards a variety of potential outcomes. Some may appear to have no relevance or significance at all. It is only when viewed through the lens of the specific activity system, that their relevance becomes clear and meaningful.

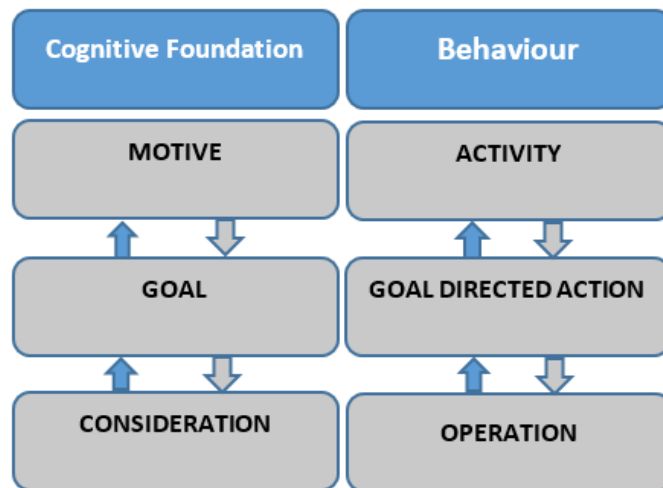


Figure 2.3 Showing relationship between activity, goal directed action and operation and their underpinning cognitive counterparts.

A simple example to demonstrate this is raising an arm into the air. This is an operation. In a classroom the associated GDA may be to attract attention and in a kitchen may be to reach into a high cupboard. The same operation is seen as a totally different entity, when related to the overall activity or GDA – which in these cases may be as diverse as learning in the classroom and baking a cake.

Within the dental setting an operation may be the dentist using the computer. The GDAs may be as diverse as interacting with a patient's record; finding pricing information for a patient; communicating with others outside of the surgery; or authorising or checking a stock order. Each GDA is related to activities such as direct patient care or managing the business accounts.

This plainly demonstrates the importance of having the activity system as the basic unit of analysis.

2.9.1b Outcomes of activity systems.

Each activity system has an outcome as previously depicted in figure 2.2. Third generation Activity Theory enables more than one activity system to be identified and taken into account and their collective, combined outcome noted. This is depicted in figure 2.4 below where it can be seen clearly that the individual outcomes are combined to produce the broader work practice or theory. An example of this might be the various activities suggested above for the operation of a dentist using the computer. The interacting activities of 'patient care' and 'managing the business accounts' may be outcomes that when combined (with or without other activity systems) support a wider outcome of running a successful dental practice.

2.9.1c Contradictions within and between activity systems.

Contradictions have been aligned previously with Billig's ideological dilemmas and can occur with a single activity system, or between different activity systems. When contradictions occur they cause disturbances or tension (Engestrom, 2000; Roth & Lee, 2007) which may give rise to conflict between different parts of the activity system or between diverse outcomes. Contradictions occur for a wide variety of reasons and often result in outcomes or objects of the activity being changed or not achieved, or 'workarounds'²⁰ being necessitated (Roth & Lee, 2007). Intra and inter system contradictions (depicted as double headed lightning arrows) (see figure 2.4 and 2.5)

²⁰ Workarounds are unintended actions undertaken by individuals within an activity system in response to trouble or tension in order to overcome the trouble. Roth, W.-M. & Lee, Y.-J. (2007) "'Vygotsky's Neglected Legacy": Cultural-Historical Activity Theory'. *Review of Educational Research*, 77 (2), pp. 186-232.

are seen by Engestrom (2000) as the opportunity for identifying and addressing conflicts, disturbances or tensions within a system of work.

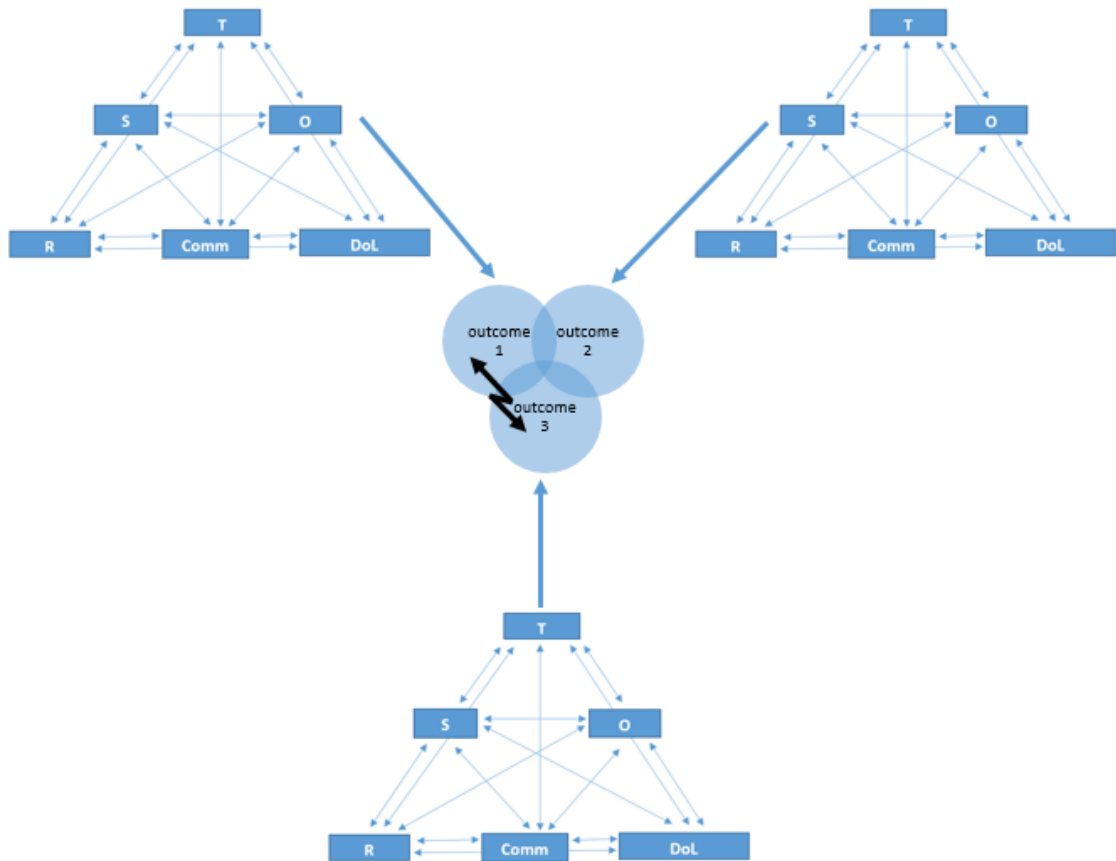


Figure 2.4 Representation of Activity Theory illustrating the inclusion of three activity systems with one inter system contradiction.

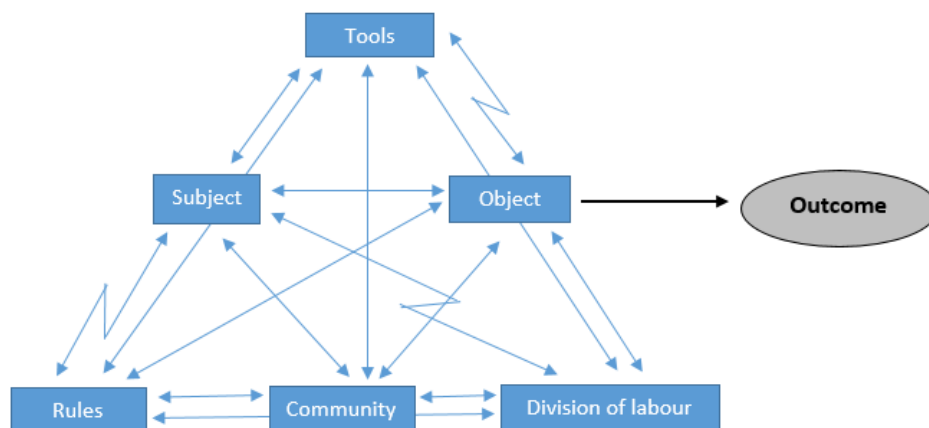


Figure 2.5 Depicting an Activity System demonstrating intra system contradictions between the Object and Tools, Subject and Division of Labour, and Subject and Rules.

An example of an intra-activity system contradiction in this study may be a broken computer or problem with the IT system, thus disabling adequate or appropriate use of patient notes. Between different activity systems it may be experienced as, for example, the conflict between using a cheaper material for business purposes in running a practice and a more expensive one to give superior clinical performance and enhanced patient care.

Learning or development is not merely about noting a mistake and correcting it. The disturbances or contradictions within and between activity systems are used as a catalyst for exploring higher level, conceptual issues. When more clearly understood, such contradictions can facilitate broader learning that can underpin change or development to create significant improvement; more than could be imagined from noting the initial issue alone.

The use of third generation Activity Theory as theoretical lens enhanced the ability to investigate the context fully; embrace complexity; be sensitive to the effects of power and politics; take account of concern with emotion; and identify elements within the different activity systems (Lee, 2011). In addition, it explicitly aligns with the definitions of leadership as a social process containing multiple reciprocal influences and being contextually and culturally sensitive and interdependent. Activity Theory afforded capacity to embed these multiple reciprocal influence processes, as well as highlight possible challenges or barriers within them via its identification of 'contradictions'. Its use enabled further inclusion of both explicit and tacit (taken for granted or unstated) actions to develop a "*holistically rich understanding of how*

people do things together in intricate and dynamic environments” (Hashim & Kones, 2007 p10) and therefore aided development of meaningful and valuable findings.

2.9.2 Activity Theory as analytic tool.

Data analysis and collection were concurrent activities with initial analysis driving ongoing and future collection. The nature of the iterative, inductive analysis process required full immersion in the data, and multiple visits to it. The final full corpus of data for each participant included:

- The in surgery audio-visual excerpts for use in the VRE session.
- Field notes from non-clinical observation sessions.
- Audio-visual recording of the VRE session.
- Field notes from the VRE session.

The Activity Theory lens was used directly to analyse both the surgery and VRE audio-visual recordings, as well as the field note transcripts. Being mindful that the basic element for analysis is the activity system, the data were analysed with a view to identifying primarily discrete activities of participants. The data were analysed systematically by the researcher to identify patterns and points of analytical interest to develop the activity systems; as well as coding of the full data corpus to the a priori codes of activity system elements (subject, object, tools, rules, division of labour, community and outcome/motive or objective). These codes were considered in how they were situated within the specific related activity system. Data were read, viewed, re-read and re-viewed until no new information was being discovered – that is until saturation was reached (Crowe *et al.*, 2011; Eisenhardt, 1989; Martins, 2008; Richards, 2009; Saldaña, 2013). The researcher met with the supervisors and experts from

supporting groups (CAMERA and PEDRIO²¹) at regular intervals to discuss and agree the analytic focus of the initial coding and analyses.

Field notes were used to highlight reflexivity and different perspectives of a finding; and comparison of data type helped identify contradictions within and between activities and participants. Analysis of the surgery recordings provided the traditional ethnomethodological 'observer' position (Garfinkel 1984) and enabled elements of leadership that may have remained unconscious or overlooked in the VRE sessions to be included in the final analysis. Codes were added to where necessary, and replication or paradox between meaning and observation noted and explored to add depth to the findings.

The demographic heterogeneity of participants and the subsequent diversity of the emergent data enhanced this iterative comparison process which led to a deeper, richer and more detailed overall understanding of the observed activities. Continuous cross case and deviant case analysis of this rich deep data enabled cross cutting, abstracted, higher-level propositions to emerge and be incorporated in the design of the final conceptual framework. The emergent understanding and conceptualisation of leadership in dental practice generated through these inductive processes led to a more complete and authentic output. This iterative and in depth analysis derived via the Activity Theory framework allowed the large quantity of data to be handled appropriately and incorporated until theoretical saturation was reached and no new sub codes or content within overarching propositions were being discovered.

²¹ CAMERA Collaboration for the Advancement of Medical Education Research and Assessment
PEDRIO Pedagogic and Research Institute & Observatory

Issues of reflexivity as previously described and discussed; crystallisation (Ellingson, 2009; Stewart *et al*, 2017; Watt, 2007) credibility, trustworthiness, and transferability (Lincoln & Guba, 1985; Morse *et al.*, 2002; Patton, 1999), of analysis and findings were addressed in a cyclical process, within the research supervisory team and relevant research groups. Crystallisation is a term that can be used in place of triangulation when using qualitative research. It is moving away from a fixed 3 sided geometric shape and the idea that the truth is being pinned down. Crystallisation provides the cross-referencing of information across multiple voices and boundaries, and identifies that it is this messiness and complexity that allows inclusion of all included strands while also recognising that many other viewpoints may still be undetected. While there are only 3 points in a triangle for triangulation, a crystal allows for multiplicity (Ellingson, 2009; Stewart *et al*, 2017; Watt, 2007). Data were compared across data types, cases, and researcher findings compared to participant findings, using constant comparison and deviant case analysis methods. This was not to confirm or refute ideas but rather to add depth for exploration and discovery. This multiple comparison and crystallisation of the data has enhanced the overall credibility (Lincoln & Guba, 1985) of the study ensuring all data and viewpoints are accounted for and that sense has been made across and within cases (Eisenhardt, 1989). These processes all supported further the development and identification of the ultimate, abstracted, concepts.

2.9.3 Activity Theory Summary.

Leadership and clinical practice both consist of complex sets of interacting behaviours and activities for which Activity Theory provided a suitable framework for

analysis and understanding. It enabled inclusion of the fundamental multi-directional influences on the behaviour and activities; multiple aims of leadership via noting specific outcomes each supported by their own activity system; as well as highlighting issues or challenges to the process via contradictions. The inclusion and identification of contradictions within and between activity systems enhanced the understanding and final conceptual framework of leadership, as well as highlighting where such conflicts or challenges occurred. Using the 'contradictions' aspect of Activity Theory allowed the dilemmas proposed by Billig (1988) and Iedema (2011; 2006) regarding intellectual versus lived ideologies, articulation work (practically embedding best practice guidelines into the real life messy reality of clinical care) and immaterial labour (constantly being flexible and adaptable while identifying, acknowledging and prioritising own and others emotions, ideas and reactions) to be embedded into the final findings.

Using the Activity Theory lens as tool for analysis enabled the rich and comprehensive description of leadership in dental practice to emerge. This enabled findings to be explained, described and interpreted in a meaningful way (Maxwell, 2013) and enhanced levels of abstraction and conceptualisation to support the development of the final conceptual framework.

2.10 Development of the conceptual framework.

The conceptual framework was developed from the combination of findings: the overarching higher order propositions, the individual activity systems, their elements, reciprocal influences and contradictions.

The integration of the outcomes of the three individual activity systems produced the combined outcome of the Activity Theory analysis of leadership in dental practice. The cross-cutting propositions were derived from the abstracted analysis of the overall Activity Theory outcome that embedded the various, lower level findings. Comparison and checking of the final framework concepts across cases ensured relevance to each individual case study. Elements were aligned to the activity system they were identified in, plus their corresponding cognitive foundations (figure 2.3), and the intra- and inter- activity system contradictions (figures 2.4 and 2.5). All the findings therefore and the final conceptual framework are established firmly in the ethnographic data.

Once the three outcomes of the discrete activity systems related to leadership had been defined, and the higher order propositions from their combined outcome had emerged, they were discussed informally with participants and other dentists as a member checking exercise prior to developing the final framework.

The ultimate conceptual framework was shown subsequently to study participants and other dental practice colleagues, informally and via professional conferences and meetings. It was also shared with other healthcare professionals (doctors, nursing and paramedic) at educational meetings and conferences. This enabled further member checking as well as potential for naturalistic generalisation (Carminati, 2018; Hammersley, 1992; Myers, 2000). The exploration of the potential ideological dilemmas described earlier for qualitative researchers, if findings are not in line with accepted consensual notions or understanding, was also addressed. All dentists who participated in member checking showed overall support for the framework. One colleague used the phrase 'common sense' after looking at it. A respected medical

education academic considered an expert in Activity Theory reported the final framework as being self-explanatory and as “making perfect sense”. It was also interesting to find that the variety of other healthcare professionals who reviewed it felt it was relevant to their areas of work.

2.11 Rigour of process and trustworthiness of data.

There are no universally recognised standards for assessing the strength and quality of qualitative research but there are debates about the terms that may be acceptable or useful, the approaches to evidencing quality, and the difficulty of establishing criteria that may overarch conflicting methodological and philosophical paradigms (Golafshani, 2003; Whittemore *et al.* 2001).

Lincoln and Guba (1985) developed their seminal set of evaluative criteria for qualitative research to support overall trustworthiness of the data and outcomes. Although associated with and based on directly contrasting universally accepted criteria used for quantitative research (see Table 2.1) (which in itself is catalyst for debate), they are useful pragmatically in this case alongside earlier explanations to demonstrate the overall rigour of both the study and its outcomes.

Table 2.1 Demonstrating qualitative and their associated quantitative validity criteria.

Quantitative criteria	Qualitative criteria
Internal validity	Credibility
External validity	Transferability
Reliability	Dependability
Objectivity	Confirmability

The areas Lincoln & Guba describe are:

- **Credibility** – confidence in the ‘truth’ of the findings or how they link with reality. To what extent the findings are mirroring what was being looked for or at.
- **Transferability** – if findings may be applicable in other contexts or to other subjects.
- **Dependability** – if the process and product of study and findings are consistent and could be repeated.
- **Confirmability** – the ‘neutrality’ of the interpretation of the findings; that they are not shaped only by researcher bias or motivation.

Throughout this study the rigour of the process and the transparency of decisions made from the start has enhanced the overall trustworthiness of the findings.

Table 2.2 below demonstrates an inclusion of a variety of methods within each element of Lincoln & Guba’s framework, used to enhance the overall trustworthiness of the study and its findings.

Table 2.2 Showing detail of elements of Lincoln & Guba’s framework for enhancing trustworthiness of the study.

Credibility	Dependability	Transferability	Confirmability
Crystallisation (across data types and sources; dentist and participant views; use of independent researchers; multiple case studies; transparency in all decisions regarding data collection and analysis) Member checking & peer debriefing (sharing early	Clear & explicit methodological processes & decision making; continuous reflexivity	Through production of the rich description of methodological process as well as findings. Embedding of the contradictions and challenges, identifying where these may have	Justification of all decisions throughout study; reflexivity and critical subjectivity; inclusion of naturalistic enquiry; member checking;

thoughts & findings with participants); Prolonged engagement in the field and persistent observation; Use of deviant case analysis & constant comparison techniques		been issues and their impact. Member checking.	respondent validation
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2.12 Ethical considerations.

This study was approved via HRA processes (IRAS project ID 162295; protocol number PSMD-D-162295-SH-001) and via Plymouth University Faculty of Health & Human Sciences and Peninsula Schools of Medicine & Dentistry Ethics Committees (project code: 16/17-698). The main ethical considerations arose from my position as researcher and registered dentist, and the professional obligation to raise concerns if any inappropriate clinical behaviours or patient safety issues were noted during collection of or within the data. Part of the consent process for the dental participants included the understanding that if this occurred all concerns would be fed back to the practice to be dealt with via their own policies and procedures.

It was made clear that when in the practice I was there as a researcher not a dentist, so could not and would not give clinical opinion or discuss clinical issues with staff or patients.

Considerations about participant anonymity in dissemination activities was also taken into account during consent. No identifying personal data about patients was collected and so there is minimal risk regarding confidentiality in this regard. No data that could identify dentist participants has been used or shared in any results or

analysis, but there is a small risk that they may be visually or aurally recognised in dissemination activities. While every effort has been made to anonymise the individuals, by obscuring facial features for example, participants were made aware that they may be recognisable in a small way through voice or environmental/contextual factors. There is very little impact on participants if they are recognised, although impact may be different if recognised within the dental, educational or wider environments. Potentially it may affect relations between dentists or towards participants by patients or potential future patients; or be assumed to have impacted the relationship between the researcher and participant and therefore on their employment within the Dental School. It is interesting to note that all the participants volunteered their videos be used un-anonymised to support training or education of colleagues or students. Many also wanted opportunity to show to their nurses to use for training.

All data about patients and additional staff captured in the recordings were anonymised with no risk of recognition.

Finally, there was a small ethical risk in recruitment that potential participants may have felt obliged to participate because of their professional relationship with the researcher and the potential power differential from their role in the academic environment. It was made very clear that neither participation nor non-participation would impact in any way their relationship with the researcher, or the institution or the wider professional community. All information and consent sheets are available in APPENDIX 2A.

2.13 Summary.

The blended methodology including use of VRE and the retrospective think-aloud technique provided an innovative process of enquiry that is entirely relevant for exploring complex phenomena such as leadership. The rich dataset accrued then provided an optimal foundation on which to build the carefully analysed and interpreted findings through the use of third generation Activity Theory, with its multiple interacting activity systems, and identification of contradictions.

The fundamental emphasis of both Video Reflexive Ethnography (VRE) and Activity Theory (AT) is the opportunity to create or produce new knowledge (Engestrom & Young, 2001; Iedema *et al.*, 2019). From Activity Theory the study of contradictions and multiple interacting activity systems enabled this study to benefit from learning in the ‘zone of proximal development’ – from where the expansive, transformative learning occurred (Engestrom, 2011; Engestrom & Young, 2001).

In VRE the theoretical premise is that clinicians inhabit and work in the ‘zone of maximum complexity’ (Iedema *et al.*, 2019). They inhabit this lived reality day in, day out and this is not accessible to an observer or through analysis of reported data alone. The insight provided by the participants through reflexivity and interpretation of activity in that zone of maximum complexity was the conduit via which new knowledge was constructed. Such new knowledge and learning supported this work to “*venture into new domains where they may consider doing the not-yet-done, saying the not-yet-said and thinking the not-yet-thought*” (Iedema *et al.*, 2019 p5). It also enabled the researcher to recognise the opportunity provided by these methodologies and move

from this learning space towards interpretation and discussion of the findings, how they might relate to one another, and to existing literature or knowledge.

The following chapters will present the analysis, deconstructed and recontextualised data and findings. They provide a thick description of leadership, grounded in the data, embedding the multivoiced nature of leadership as well as the multiple perspectives inherent in dental practice, within interpretative and constructivist framework embedded within the methodology. The development of the framework, discussion of the findings and the links to existing theory and literature then follow.

Chapter Three: Findings (1)

Deconstruction to understand and explain leadership.

“It’s about the team; good leadership isn’t necessarily you telling people to do their job. It’s them doing it without you knowing.”

(Dental Principal)

3.1 Introduction.

As conveyed in the previous chapter, this study produced substantial amounts of data which were rigorously analysed to enable findings to be brought together in a meaningful way. The data were first deconstructed using Activity Theory as the analytical framework. The individual elements of the deconstructed activity systems along with the associated activity systems themselves were then recontextualised to understand the dental practice situation. Using constant comparison between and within similar and deviant findings, a higher-level analysis was conducted and overarching propositions identified. These were developed from exploration of the individual activity systems and cases, as well as consideration of the ‘contradictions’ component of Activity Theory that was embedded within and between each of the three systems. Exploration of contradictions led to transformative expansive learning (Engestrom, 2000; Engestrom & Young, 2001)²² which in turn supported deeper and more nuanced analysis. Such analysis facilitated a more profound understanding of

²² Transformative expansive learning occurs when a seemingly small, insignificant issue is explored, discussed and understood which leads to new knowledge being discovered. This in turn can lead to exponential change, improvement or understanding.

leadership in this context which enhanced the richness and detail of the final narrative, enabling higher level abstraction and conceptualisation.

The findings detailed in this and the next chapter provide context, detail, and new insights into leadership. Use of these may support and aid development of the existing curricula and governance documents relating to leadership within dentistry.

3.2 The business of dentistry and definitions.

To make sense of the situated findings of this study it may help to provide insight into some of the complexities of dental practice in the UK. Following changes to the Dentist Act 1984 (Amendment order) 2005²³ it became lawful for non-dentists (e.g. dental nurses and hygienists) and large companies (known as Dental Body Corporates (DBC)) to own and run dental practices. The law states that at least 50% of DBC directors in England need to be GDC registrants and the GDC regulate these corporately run businesses in the same way that they regulate independent practices²⁴. Within NHS arrangements, any practice will have its own contract with the local NHS commissioning team, and each dentist within a practice their own internal contract, negotiated in relation to the overarching practice one. What this means is that individual dentists may get paid different rates for the same treatment they provide, even if they work in the same practice. The exact mechanisms and implications of these different set-ups are outside the scope of this study, but they become relevant when considering the outcome of the thematic discussion in the next chapter linking to 'dentist as business person'. It is a hugely complex task to link

²³ <http://www.legislation.gov.uk/uksi/2005/2011/made> section 38

²⁴ <https://www.gdc-uk.org/professionals/employers/corporate-dentistry>

dentists working in DBCs with NHS contracts and service provision²⁵ and so these dentists tend to be paid a set annual salary, although the DBC practice as a whole will still have to deliver its local NHS contract. Some better known DBCs include BUPA, Smile and My Dentist – the specific DBC included in this study remains unstated.

The practice owner/principal or DBC own the ‘goodwill’ of a dental practice which is defined as the intangible assets of the business which add value over and above the tangible assets such as buildings and equipment²⁶. Goodwill includes the list of patients, reputation in the community, likelihood of patients returning, patient dental records and dental charts and notes. It is used to predict value and future earning potential of the practice. Goodwill is therefore an important entity for practice owners. The ‘Principal’ of the practice is the dentist who owns an independent practice or is in a business partnership ownership arrangement. Practice principals oversee the clinical operation as well as focussing on the business side of the practice. This includes recruiting dentists as well as hiring and firing other staff.

‘Associate’ dentists are self-employed qualified dental practitioners who work in a practice. Typically, they are fully responsible for the clinical care they provide to the patients. The associate works within the dental practice and they are provided with patients, equipment, staff and surgery by the practice. Income is taken by the practice: associates and principals are typically in a financial arrangement whereby the practice takes a percentage of the associate’s gross income (normally between 50-

²⁵ <https://www.nasdal.org.uk/assets/articles/75-76-Dental-Practice-4-April-2017.pdf>

²⁶ <https://www.practiceplan.co.uk/resource-library/financial-advice/goodwill-of-a-dental-practice>

65%) and the associate is then paid the remaining 35-50% as their gross income.

Associates are therefore considered as self-employed.

In contrast some practices and many DBCs instead pay a monthly salary to their associates based on a pre-agreed annual income. This can then mean the dentist is employed in legal terms with all the challenges and opportunities that brings. An individual dentist is still responsible for the clinical care they provide, but if employed rather than self-employed the business takes on a greater degree of vicarious liability – this may go hand in hand, however, with having more influence over that care.

Associates normally have to sign a contract to confirm that if they leave a practice they will not work within a certain geographical radius afterwards, so that patients are less tempted to move with them, which would seriously impact practice goodwill.

Additionally, when a practice is sold independently or to a DBC the departing dentist often remains working for an agreed period of time to maintain the goodwill through continuity of care for patients.

These explanations should help the reader situate and make sense of the following participant demographics and study findings.

3.3 Participant demographics.

Table 3.1 describes the various participant demographics across the seven case studies. There was a spread of demographics across the sample which increased the opportunity to learn from participants with dissimilar experiences and in different contexts. Appendix 3A details additional information about the individual practice environments each of the participants worked in, details of work practices on the day

the filming took place, and further information about the individual dentist participants.

There was a range of patients seen by the different dentists and this was due to availability for filming; different roles/jobs on the day of filming; a number of patient cancellations or failures to attend during the filming period; two patients not consenting; and degree of difficulty of treatment being delivered with associated varied length of appointment times.

Table 3.1 Dentist participant demographics.

	Gender	Time since qualification (years)	Time in practice (years)	Position in practice	Number of surgeries	Private, plan ²⁷ , NHS or mixed	Location (rural, suburban, city centre)	Part time PT or Full time FT	Previous practice experience	Nos patients seen while filming
D1	Male	15-20 years	8	Principal owner	3	Private & plan	Rural	FT	Associate (mixed)	5
D2	Female	2-5 years	3	Associate (corporate)	5	Mixed (all)	Suburban	PT	Dental Foundation Trainee & Associate (NHS)	7
D3	Female	10 - 15 years	6	Principal owner	7	Mixed (all)	City centre	PT	Associate (mixed)	7
D4	Female	2-5 years	1	Associate	4	Private & plan	Suburban	PT	Dental Foundation Trainee & Associate (NHS)	2
D5	Male	>30 years	2	Principal partner	4	Private & plan	Suburban	FT	Principal owner & associate (mixed)	5
D6	Male	2-5 years	2	Principal partner	4	Private & plan	Suburban	FT	Dental Foundation Trainee & Associate (NHS)	1
D7	Male	2-5 years	2	Associate	4	Private & plan	Suburban	PT	Dental Foundation Trainee & Associate (NHS)	3

²⁷ BUPA, Denplan, In house payment plans

3.4 The three overarching Activity System Objectives.

The data showed that the daily activities of all participants related to three different aspects of their work. For the purpose of analysis, each of these aspects became the objective or outcome for an individual activity system.

- Activity System 1: Patient care (PC)
- Activity System 2: Running the surgery (RS)
- Activity System 3: Running the practice (RP)

The combination of the three systems thus resulted in the overall Activity Theory of leadership in dental practice as depicted in figure 3.1

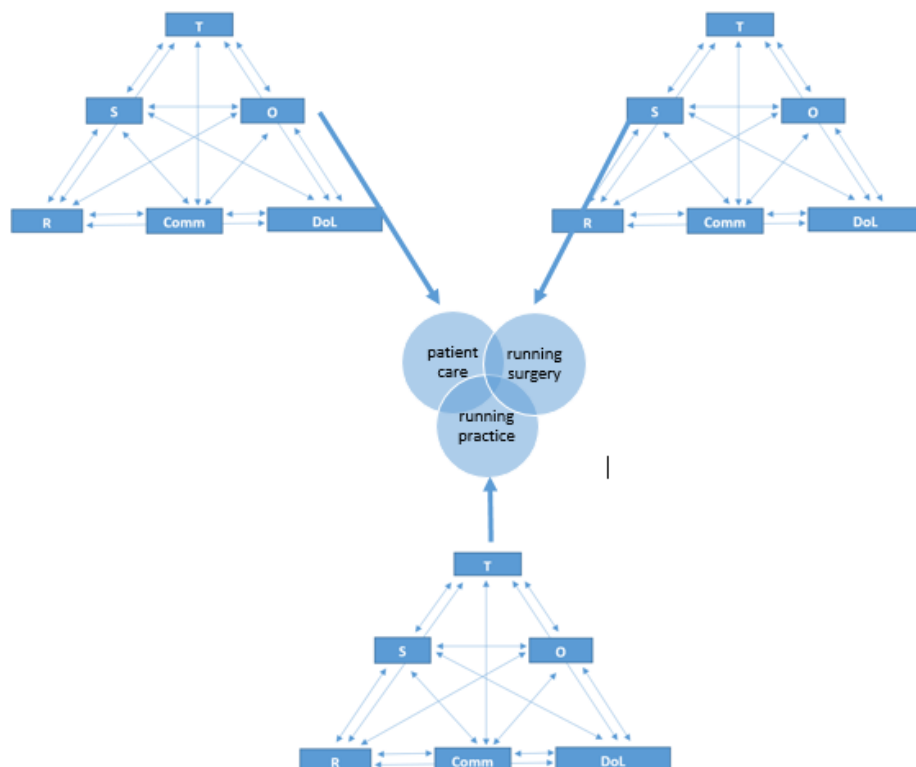


Figure 3.1 Activity Theory for leadership in dental practice: the three discrete Activity Systems relating to three overall outcomes.

3.4.1 Objective 1: Patient Care (PC).

Within the dental surgery when undertaking a patient care role, all dentists tended to 'do' similar things and demonstrate similar patterns of behaviour. The dentist would signal to the nurse that they were ready for the patient and the patient would then be collected or called from the waiting room into the surgery. The patient would be greeted, introduced to whoever was in the room, invited to hang coats, bags etc. and to sit in the dental chair. The patient physically sitting down onto the chair was observed to signal the start of the clinical appointment - this being the moment that the patient became the prime 'object' and absolute focus of all activity.

The dentist always led the appointment from this moment, usually beginning by asking the patient for some information, gauging their expectations for the appointment and gaining or reconfirming consent to continue. The dentist then moved the chair position, normally so the patient was lying back, and protective glasses and a napkin/bib (personal protective equipment) were provided and placed in an appropriate position for treatment. This signalled the start of the clinical treatment phase of the appointment.

The dentist continued to lead the appointment at all times, communicating to the patient and nurse in various ways about what was happening now and what was to happen next. The dentists used many artefacts, including the nurse, patient and computer (for example looking at patient notes or pricing information), as sources of information, or tools, to advise and guide the progress of the appointment. Treatment was carried out, and when finished this was also signalled by the dentist; often by

moving the patient in the dental chair back into an upright sitting position and/or turning away from the patient to do something else (perhaps inputting information into the computer or washing their hands). This was seen to reinforce the point that the clinical encounter was over. On occasion, temporary breaks or rests in the appointment were signalled in a similar way by handwashing, looking at the computer, or turning away to do something else. While the patient was lying in the treatment position, the clinical activity was still seen to be ongoing - whether the dentist was directly interacting with the patient or not.

Once the signal had been given that the clinical encounter was complete, patients were then provided with information and/or communicated to explicitly that the appointment was over, and they could leave the surgery. This was usually along with instructions or understanding that they were to report to the reception desk.

The beginning and end of this 'patient care' objective was seen to be when the patient sat down or got up from the dental chair. The additional parts of the patient encounter; introduction, greeting, farewell and conclusion elements of the patient being in the surgery but not sitting in the dental chair, shared characteristics from both this objective and the 'running the surgery' objective. The transition and intersection between the two distinct activity systems was seen mainly in the change of focus between being wholly on the patient or across a wider remit, and in the dentist-nurse communication. There was also a shift from the dentist being in absolute control during the 'patient care' activity, to control and decision-making being more shared and negotiated in the 'running the surgery' objective.

Different participants attributed various meanings to what they were doing, as well as noting dissimilar intentions. Divergence in this patient care system stemmed from personal motivations and understandings of their what, why and how of the 'doing' of being a dentist²⁸: as well as individual personality differences, communication styles, values, ethics, personalised moral underpinnings and future career plans. All participants shared the feeling of a deep focus on, and responsibility to, patients during this activity and demonstrated how relationships and behaviours were managed when a patient was there.

D1 "With the patient there, leadership in the dental surgery should all be seamless – it shouldn't be noticeable. If you have to tell someone to do their job, it's embarrassing in front of the patient – it doesn't look professional. Most leadership (hopefully) comes from behind the scenes"

D1 "I always try to stand up when a patient leaves, it's just polite. If you're waving someone off sat on your backside it's... [makes gesture to show disapproval]"



Figure 3.2 Image showing dentist standing when patient leaves

²⁸ See Sacks (1985) on 'doing being ordinary'



Figure 3.3 Image showing dentist helping patient with coat.

D7 "I always look after my older ladies like this. Isn't it just common courtesy?"

D7 "We do talk a lot, but not when we're working. Some patients don't like it (chatting) because they think you're not doing the job properly if you're chatting about the weekend"

D5 "When a patient is being treated you use that time to focus on the patient, then between patients all the other stuff comes back into your head again...you have to make sure all your patients feel that you are caring for them. They all deserve your undivided attention"



Figure 3.4 Example of dentist's entire focus being on their patient during an appointment.

3.4.2 Objective 2: Running the Surgery (RS).

Objective two is related to the dentist's planning, preparation, monitoring and contemporaneous management of the clinical environment of the dental surgery. There were many similarities across participants in the activities involving the running of their surgeries. This objective included consideration of the physical resources needed within the surgery and the set-up of the physical space, along with the actions of the nurse and other members of the team that impacted their surgery session in some way. The dentists all undertook preparation and ongoing monitoring and management activities relating to running the surgery before, during and after the patient appointment.

The dentists were prepared and ready for the clinical session having previously examined the appointment book to see what was planned. The dentist confirmed (themselves and/or via the nurse) that the surgery was fully ready for them to carry out the session, with respect to materials and resources; equipment set up, switched on and functioning appropriately; and all necessary specific patient related information available. The dentist would also check or confirm the level of training, experience or knowledge of the nurse they were working with – with reassurance, support or additional help requested or provided as required. Dentist and nurse worked together to set up and manage the surgery, with the nurse often taking the lead in the preparation and pre-patient set up and post patient, clean-down activities. Nurses also tended to have a greater knowledge of important processes and resources (including specific dental materials); where paperwork could be found; maintenance of equipment; an overview of the session relating to timings; patient related factors

(emotional and personal areas, not clinical need); other team members; and equipment availability (including, for example, what was being sterilised, what was cooling/ready to be used again, general material and stock control) and were often seen to take the lead on these areas. Communication and interactions with other staff or practice areas tended to be done through the nurse; occasionally the dentist would communicate directly with reception or external people (for example, lab technicians).

During the clinical session, surgery management involved the dentists being responsible for all the specific clinical and governance rules, guidelines and processes relating to the procedure carried out on a specific patient (including cross infection control, clean down and set up, radiographic, lab related, equipment use). Although the dentists assumed overall responsibility, it was the nurses who normally undertook the activities. Dentists managed this through delegation, observation, assistance, reinforcement and communication with the nurse. The dentist also had to balance their own professional needs in the surgery with the availability of staff and other resources, so often compromised and demonstrated flexibility in thinking and action (for example, if a certain material was not available, or a piece of equipment was not working fully, or the nurse was busy doing something else when the dentist wanted to move on to the next patient or activity). The communication between dentist and nurse demonstrated that although overall responsibility for the patient lay with the dentist, the dentist did not always assume the leadership role in this activity system. Rather, they were working in partnership with their nurse. This mirrors the theoretical notion espoused in the literature of followership being of equal importance to leadership and of leadership being a socially constructed reciprocal influence process

(Uhl-Bien, 2014). The activity relied on negotiation and flexibility in communication by the dentist, as well as listening, compassion towards the nurse, and knowing when compromise was acceptable and required.

Divergence in this objective was mainly linked to practice level elements (staffing levels and roles, responsibilities); experience of the nurse; responsibilities with respect to ordering (who can and can't, limits on spending); processes (decontamination, communications); surgery logistics (including the familiarity and consistency in the working environment); and relationships (between the dentist, nurse and other staff in the practice). Each dentist had their own personal way of working with their nurses to effectively run the surgery, but all worked in partnership with their nurses to achieve this.

D7 "It should be like a well-oiled machine"



Figure 3.5 Dentist and nurse working together to produce the 'well-oiled machine' of a dental appointment.

D6 *“I say it you write it’ – that’s the rule for the nurses to use the computer while we’re talking to the patient. That way you don’t miss anything and you’re not trying to remember it later”*



Figure 3.6 Images depicting dentists examining patients while nurse writes notes on the computer.

D1 *“We’re more equals. Patients pick up on hierarchy – ‘why did you do that? Because I told you to’, that doesn’t really work anymore!..... The smoother you can make the dynamic between you and your nurse the easier it is, otherwise it makes the job just that little bit more awkward. You can see that I’m only really in control of the bracket table – the other 80% of the space is [nurse’s]! If you work together it’s a lot easier – if you’re working against one another it’s a bloody long day!”*

The following sequence of still images, taken from an in surgery recording, depicts the nurse taking charge of the clean down and set up tasks between patients, and reinforcing the comment made above regarding the dentist only being in control of a small amount of the space. The nurse can be seen across all parts of the surgery, while the dentist remains in their area – detouring only to the bracket table (where the

dental instruments are laid out), the computer and back again. The final image depicts the nurse taking the lead in the clearing up after the patient care while the dentist finishes the clinical care – and again acknowledging the nurse’s use of the space. In this specific case, the nurse is the female depicted walking and moving around, and the dentist the male who is sitting on the stool.

Chapter Three Findings (1) Deconstructing leadership



Figure 3.7 Images showing nurse (standing) travelling around space while dentist (sitting) stays in own designated area.

3.4.3 Objective 3: Running the practice (RP).

This objective and corresponding activity system was centred on how participants' leadership actions related to the higher level 'business' of the dental practice in which the surgery and their patient care was situated, as well as relating to their own income generation. This impacted and was influenced by multiple factors including:

- their working hours
- the patient base
- their own patient lists (number and type of patient and available treatments)
- the physical properties of the surgery and practice
- available materials and equipment
- pricing structures
- financial impact on dentist, patient and business
- the fullness of the appointment books
- support staff and the rest of the team
- training opportunities
- and ethos and 'feel' of the practice.

Ultimately, this activity was engaged in explicitly and consciously by those who own practices and quite often, consciously or unconsciously, ignored by those who do not. All dentists recognised the impact of this activity on their individual work in some way although for associates it was more to do with personal finance and the 'business' of their appointment book, rather than explicit practice business requirements.

Each participant demonstrated engagement with the first two systems while this third system and its running the practice objective, showed the greatest divergence in participant response. This difference stemmed from various factors, including role in practice (principal or associate), motivation for job/role, and closeness of relationship to principal or practice owner.

Only principal dentists (D1, D3, D5, D6) mentioned making money **for** the practice and associates (D2, D4, D7) did not explain or demonstrate any responsibility toward practice or surgery upkeep, maintenance, staffing or business aspects of their work. Where D5 worked as principal in the participating practice and as associate in another practice, they reported differing reactions and response to this activity system's objective. D5: *"I still work as an associate in [different practice] and no, I don't feel as much responsibility for it at all. It's not my remit".*

All participants who actively engaged in this level of activity reported it being all encompassing and relentless with no breaks. They demonstrated completing or arranging a wide range of work or 'jobs' in addition to their clinical role of seeing and treating patients. This relentless activity level appeared to conflict at times with their personal preferences and/or motivations (for example, not spending time with family in order to work, not being able to have a break in the day) as well as with their preferences and choices as a clinician (for example, wanting to see patients or give them more time, but having to suggest they see someone else, or hastening their exit due to the demands of the need to be constantly busy or to comply with NHS versus private system arrangements).

D1 *"We had a flood in the surgery and I'll have to paint the surgery again...you see the glamour of owning your own practice? That's planned for Sunday! As principal you get bugger all time to do anything else so if you've got 2 minutes you have to take what time you've got.... Some days are a huge thing running a whole practice, y'know?"*

D3 *"I bet this is very different from watching an associate in practice?... I'm constantly balancing patient care with running the practice. I think that's what's missing when I am on leave.... any down time I'm just bombarded. I'm shattered when I get home. Its total immersion in the practice – but it's your business, your practice....My husband says I work all the time; that I think of the practice all the time, but I think you have to. And I get a lot of pleasure from the outcomes."*

D6 *"It's the pressure of time so I'm trying to read patient notes while trying to communicate about something else that's happening with the business ...so it's just speaking to people when you have the chance.....It's different being a principal because you're not just taking responsibility for your own patients within the confines of the kit and stuff you're given... you're trying to make sure that your facility is as good as it should be and everyone's using it as it should be used so that you're doing the best for the patient yeah?"*

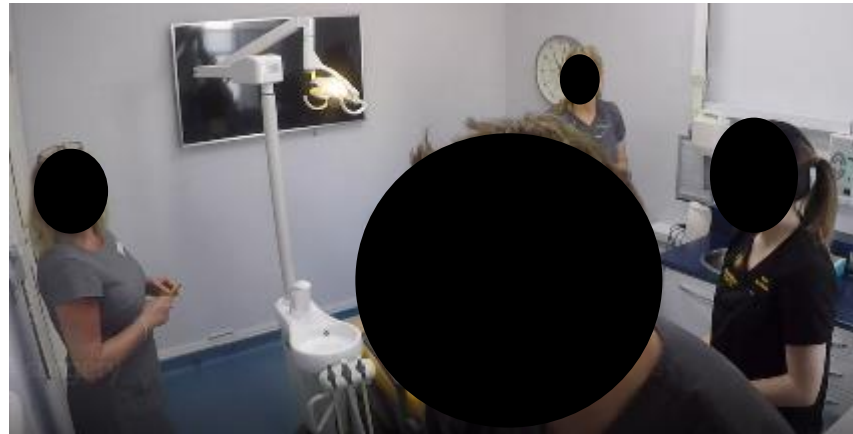


Figure 3.8 Principal dentist in surgery between seeing patients using time to speak to receptionist and other dentist while trying to prepare to see the next patient.

FN entry: *“D6 in practice but not supposed to be treating patients – is constantly being asked questions and approached from all angles... to answer or clarify. The principal has to be constantly vigilant to the practice in one way or another and always available. While D4 and D7 [associates] sit with the nurses and eat lunch; D5 and D6 [principals] are with rep and discussing business aspects and future plans.... D5 & D6 interviewing new nurses within their day – appointment books synchronised to allow them to both have the same free time to do it. But even to chat about who they want is rushed and the conversation interrupts D6 VRE session....and even then that conversation is taken over by the clinical care of one of D7s patients! It’s like Piccadilly Circus...”*



Figure 3.9 Dentist during VRE session being interrupted by two different colleagues for two different purposes.

The data identified a stark contrast between principals and associates which reinforced the proposition that emerged from the potential internal conflict between three distinct personal positions or contexts of being ‘a dentist’: the self as an individual, as a clinician and as a business person.

D7 “I should think about it [the business side of things] more, but really don’t want to. I think there’s too many doorsteps in the way. You’ve got staff, staff squabbles, they’re not always happy, you’ve got all the rules and regulations and all the other bits and bobs that come with that. And when there’s problems you’ve got to decide who’s going to deal with that, and who’s going to pay for that, and you just think.....no, I mean I just don’t want it”

In addition to the differences noted between principals and associates, specific differences were further emphasised between associates in independent practice and

associates within a Dental Body Corporate (DBC). This related mainly to loyalty and interpersonal relationships with, and feelings towards, those running the business and is discussed with the organisational and leadership levels in section 3.6.

3.5 Elements of the three activity systems.

From the three distinct activity systems, the six individual elements of each were populated, as the operations, goal directed actions of the dentist participants were further deconstructed as they related to the identified activity systems. The elements of an activity system are the subject, object, tools, community, division of labour and rules. Dentist's actions are undertaken by them as subjects, on or for an object, with the aim of reaching one of the three objectives: patient care, running the surgery or running the practice. These actions are mediated by 'tools' and take place in a dynamic environment, influenced by many factors of a situation – namely 'rules'; 'community' and 'division of labour'. The specific activity system element tables shown below depict common or unexpected examples of each of these individual elements. Examples show divergence in the same items being utilised or responded to in various ways, so creating the specific reality for each participant.

3.5.1 Subject.

The **subject** in all three systems was the dentist. The dentist performed actions towards an objective or outcome (patient care, running the surgery or running the practice). These actions were performed on or for an object.

3.5.2 Object.

The object on or for which the subject undertook actions in each of the three systems was:

- the **patient** for objective 1 Patient Care (PC)
- the **dental surgery** the dentist was working in for objective 2 Running the Surgery (RS)
- the **dental practice** the surgery was located in for objective 3 Running the Practice (RP)

3.5.3 Tools.

Tools are the physical, psychological and emotional artefacts subjects use to mediate the subjects' actions, including language, computers and dental instruments. They have been described in the previous chapter. There were multiple **tools** noted within and across all three systems. The same tool was often shared across systems but used in different ways depending on how a problem or activity was being interpreted or carried out. Even when the goal directed action was similar (i.e. using the computer, communicating with the patient) the meaning was specific to the activity system it occurred within, and the subject using it. For the purposes of this study, tools were identified as such solely if they demonstrated influence and/or highlighted contradictions. They were not defined in any further depth or level (Hawkins-Waters, 2013). Table 3.2 shows some of artefacts identified as tools used by dentists within the three systems, with examples of how they were used in various ways.

Table 3.2 Artefacts identified as tools within the three systems and which systems they were identified in.

Tool	Examples of use	Activity System identified within (PC, RS, RP)
Dental chair	To move patient into appropriate positions to receive care. As signal of start & end of clinical care.	All
Dentist's sink	For hand washing. To gain composure/create mental space/signal 'change' within appointment. To test water pressure from instruments. As receptacle for non-clinical waste (e.g. used & discarded sterilising pouches).	PC
Sharps bin	To provide safe disposal of syringes etc. To demonstrate compliance with rules. As item for negotiation in clinical waste contracts and/or professional network development.	PC, RP
Tone of voice	To convey feeling to others. To control and influence patient (e.g. to help reduce anxiety). To conceal emotion & convey different feeling (outward sign of emotional labour).	All
Eye contact	To communicate with nurse without patient being aware. To convey listening to patient. To reinforce an interpersonal connection.	All

	To enhance communication with another person.	
General communication strategies & language	To Influence and guide patient appointment. To give instructions. To create sense of bonhomie. To cross perceived or real boundaries.	All
Patient notes	To follow rules. As acceptable pretext for turning away from patient/making mental space. To convey information e.g. cost To be prepared.	All
Computer in surgery	To write patient notes. To look up information. To share information with others. As entertainment (controls music/finding amusing clips to share with nurse). To support patient care. To communicate with others outside surgery (immediate and delayed). To deflect responsibility of unwelcome information from subject.	All
Charging/ governance system (NHS/insurance or payment plan/fully private)	To explain cost to patient. To redirect responsibility for cost. To ensure business has suitable financial model and is viable. As influence over materials used/clinical care carried out.	All
System for background music – e.g. radio, online	To relax patient. As a distraction. To provide positive work environment for dentist.	PC, RP

Use of jargon	<p>To aid precision in professional communication.</p> <p>To enhance collegiality/sense of team.</p> <p>To influence or obfuscate patient.</p> <p>To demonstrate knowledge.</p> <p>To build rapport with professional networks.</p>	All
Dental equipment & materials	<p>For clinical care.</p> <p>As bargaining tool for mutual benefit</p> <p>As valuable commodity.</p> <p>As an expense.</p>	All
Dentist personal equipment (e.g. loupes²⁹)	<p>As visible demonstration of patient-centredness.</p> <p>To enhance & support patient care and dentist experience.</p>	PC, RS
Subject knowledge	<p>To support patient care.</p> <p>To enable professional discussions.</p> <p>To train and lead in clinical care and surgery processes.</p> <p>To underpin clinician responsibility.</p> <p>To enable successful outcomes.</p> <p>To promote and build practice.</p>	All
Dentist training	<p>To enhance patient care.</p> <p>As bargaining tool for employment.</p> <p>To comply with rules.</p> <p>To advance career.</p>	PC, RP
Nurse training	<p>To enhance patient care.</p> <p>As bargaining tool for employment.</p> <p>To comply with rules.</p> <p>To advance career and pay.</p> <p>To support dentist appropriately.</p>	All

²⁹ Custom made eye wear with magnification

	As additional role & responsibility of dentist.	
Practice forms	To follow rules. To claim fees. As business paperwork and audit trails. To communicate with networks internal and outside practice. To record information.	RS, RP
Immaterial and emotional labour³⁰	To enable clinical care. To enhance communication. To create professional identity and persona. To follow rules & expectations. To modify/hide emotional responses. To influence/control patient and setting. To build functional relationships To aid pragmatism to balance financial and clinical demands.	All
Articulation work³¹	To enable effective clinical care. To personalise care and make it patient-centred and appropriate. To maintain running of surgery & practice. To rectify mistakes. To moderate challenges or difficulties. To manage expectations. To follow rules.	All
Goodwill	To create business viability. As bargaining/negotiating chip. As financial guarantee & reassurance. To create reputation of practice.	RP

³⁰ Managing self to moderate response to others or the situation

³¹ Making sense of contradictions; manage discrepancies between best practice and achievable practice; or expectations and reality; intellectual ideology and lived ideology

3.5.4 Rules.

Within the practice community many **rules** were noted to influence one or more aspects of the dentist's activity. These were seen to be varied and multiple, for example, from dentists not feeling it appropriate to react emotionally to patients, to making sure clinical guidelines on cross infection control were effectively carried out. Multiple explicit rules were noted to be followed such as cross infection guidelines for storage of sterilised instruments, the dentist disposes of their own used 'sharps' (needles and burs), and inclusion of certain specific information in the patient notes (for example the batch number of local anaesthetic used and its expiry date). Many of these explicit rules were externally prescribed via standards and guidance documents and plainly addressed. Some rules, however, appeared implicit, such as the nurse listens to what the dentist is saying to the patient and works out what will be happening without being specifically asked, or the dentist should run on time, the dentist looks after the patient and the nurse looks after the dentist. These implicit rules appeared to be adhered to tacitly by all parties involved. It was clear that each dentist influenced how the rules were enacted, that they were often unspoken, created organically and frequently followed unconsciously and without question. Some rules were seen as non-negotiable, including the regulatory or clinical and technical governance rules, which in itself caused concerns or increased stress (articulation work). As before, the following list is not exhaustive but gives a flavour of some of the unwritten rules, inductively revealed through observation and VRE, which implicitly influenced the leadership activities of dentists.

Table 3.3 Rules identified within the three systems and which systems they were identified in.

Rule	Examples of variance	Activity System identified within (PC, RS, RP)
The nurse speaks and interacts with patient as agreed with dentist during clinical appointment	Agreement between dentist and nurse as to if, when and how much, nurse interacts with patient (mostly tacit – causes challenge if not agreed and nurse and dentist have differing ideas)	PC, RS
Either nurse or dentist collects patient from waiting room	This is pre-agreed and may be flexible in response to situation/patient or staff need	PC, RS
Talk to the patient from in front of them not behind their head	Universal tacit rule – many issues/challenges to following it	PC, RS
Dentist takes charge/is the team leader	Even if another is given responsibility for specific task(s). Exception in activity system three (RP) in DBC, where company is in charge of some things e.g. recruitment of staff	All
Dentist looks after patient, nurse looks after dentist	Universally observed tacit rule	PC
Dentist looks after nurse	Universally observed rule – tacit and explicit	RS, RP
There are specific ways of behaving with and in front of patient	These are pre-negotiated/agreed between teams. Explicit and implicit – often tacitly followed	All
Dental nurse needs to be happy	Universally revealed via VRE	All

Dental nurse needs to be steps ahead of dentist and constantly vigilant to what dentist is doing and saying (while patient in chair)	Universally agreed as rule and led to dilemmas and trouble when it was not followed	PC
Patient should get value for money and feel looked after. Patient experience is paramount	Implicit and universal	PC, RP
Nurse prepares and manages surgery	Pre agreed/negotiated/universal	RS
There is clear space allocation in surgery (dentist side; nurse side)	Pre agreed or negotiated – this may require explicit negotiation where dentist/nurse teams are unfamiliar	PC, RS
All staff and patients expected to follow societal rules and accepted norms	These may need explicit parameters where there is disagreement	PC, RP
Dentists should be aware of good timekeeping and if they are running late (acceptable limits)	Implicit and subject to different parameters of acceptability	All
Division of labour has to be explicitly understood and negotiated	This may be organically derived or explicitly negotiated	All
Nurse completes patient charts for dentist	Universally observed rule – no explicit input even where teams are unfamiliar	PC, RS
Designated person makes refreshments at specific times	This is subject to individual variance, but was observed universally across all participants	RS
There are specific processes for when and how to charge patients	Universally observed but flexible depending on individual dentist. The only constant was understanding that patient does	PC, RP

	have to pay or prove valid exemption	
Dentists need to work efficiently, speedily and constantly during a session, with one break only for lunch	Universally observed and commented on in VRE. May need explicit negotiation with team for each individual dentist (articulation work often needed in the case a comfort break is required)	All
Patients need to attend in line with the agreed appointment book; follow advice and self-care; plan and be available to attend future appointments; listen, understand and consent to treatment; pay for treatment received	Universally observed and implicitly alluded to in VRE	All

By highlighting and clarifying the rules, many of which were culturally and historically embedded into the leadership activities of dentists, the previously hidden was made visible. Such rules include the nurse looking after the dentist while they look after the patient, and the nurse working out what is required rather than waiting to be asked directly. Participants were observed and often made comment on the ‘orderliness’ of their activities which had so far been conducted unconsciously. Through use of this element of the activity system, sense could be made of activities which may otherwise have appeared aimless or unnecessary; such as keeping regularly used instruments in sealed bags in drawers, which seemed to hamper patient care but is fundamental to cross infection control procedures.

Issues arising when such rules were not followed or adhered to were then able to be explored within the given context. This enhanced the in depth and detailed understanding of the leadership activities of dentists.

3.5.5 Division of Labour.

As with explicit and implicit rules, the **division of labour** also contained explicit and implicit understandings. This element exhibited the most distinction and mutual exclusivity between the three discrete activity systems: patient care, running the surgery and running the practice. Those having a role in the various activities via division of labour and the specific activity system(s) in which they are involved is detailed in table 3.4. Differences were noted in the division of labour both within a specific participant's activities and between the various different participants. Differences were related to a multitude of factors, including personal preferences, practice policy or culture, ability of each party involved and overall efficiency.

Table 3.4 Division of Labour elements identified within the three systems and which systems they were identified in.

Division of labour	Activity System identified within (PC, RS, RP)
Principal Dentist	All
Associate Dentist	PC, RS
Dental nurse	PC, RS
Practice manager	RP
Receptionist	All
Patient³²	All

³² Part of the onus in all dental activity is on the patient. This includes that they are expected to turn up to their appointments, on time, accept treatment and pay their fees. They are expected to ring in advance if appointments need to be cancelled and to provide honest information to the dentist and practice. They need to maintain a home care oral health routine which supports what the dentist is doing in the clinical environment.

Patient companions/carer	PC
Dental laboratory	RP, RS
Dental technician	PC
External providers (workmen, electricians, fire safety advisors, clinical waste collectors)	RP
Employer (DBC board)	RS, RP
Collection and delivery services	RS, RP
Companies involved in clinical care (e.g. Invisalign)	PC, RP
Companies involved in practice (e.g. patient insurance, text messaging and call centre services)	RP
Other dentists in the practice	PC, RP
Dentists from outside the practice	PC, RP

3.5.6 Community.

The external **community** in which the practice was located as well the internal community within the practice itself, were both seen to impact the three activity systems as depicted in table 3.5. The practice location influenced the outside space of the practice including name plaques, external decoration and advertising, but also was influenced by parking, access (buses/no buses) and proximity to other services (shops, doctors, food for example) for overall convenience for patients and staff. The local external community impacted the patient base, and whether the practice and team played a wider part in the local community or were simply there as a dental practice. All these areas were noted to influence the reputation and reaction to the practice and its staff in the local community. Part of the external community includes the laboratory and local hospitals –how and when these external partners could be communicated and collaborated with influenced all areas of the leadership activity. Local dental practices and services for collaboration or who were in competition impacted across

the running the practice activity; and if the dentist also had their personal network within the locality or only came in to work. The external community influenced recruitment of staff as well as the patient base.

Within a practice various different 'communities', sometimes called teams, were noted which could be flexible and change across time and location. These were noted to influence the activity systems via their relationships with the practice and each other and were responsible for supporting or undermining the overall ethos and feel of the practice.

The physical space of the surgery was observed and discussed widely in the VRE sessions to be an important component of 'community' to the individual dentist working in the space, and therefore became an element of community in itself - unrelated to specific people. This was more explicit when the dentist worked in only one surgery, and when they had been given opportunity to input into how the space was designed and allocated and what it contained. It was highlighted as causing disturbance or trouble within activities when the space was unknown, unfamiliar or uncomfortable in some way. Elements of the space related to a divergent variety of areas including the lighting, overall comfort and set up (right or left handed, space to move around, access to and from surgery and linking with other spaces such as the reception and the decontamination areas).

Table 3.5 Community elements identified within the three systems and which systems they were identified in.

Community	Activity System identified within (PC, RS, RP)
Physical space (surgery and practice)	All
Within surgery	PC, RS
Within practice	All
Local area (non-professional)	PC, RP
Local area (professional)	All
Dentist personal community/family/friends	PC, RP
National	PC, RP
Patient base	PC, RP
Non patient base	RP

The community element of the activity systems played a highly influential role on the participants' leadership activities, including the pricing structure, hours worked, and overall satisfaction and well-being of the dentist as well as their team.

3.6 Summary of deconstructed activities.

The use of the activity systems enabled the three overarching objectives of leadership to be noted: patient care, running the surgery and running the practice. Within each of these systems, the individual activity system elements were populated to support and enrich the findings of how dentists demonstrate and explain their leadership activities in their day to day work.

The next chapter will recontextualise these findings to define the overarching concepts of leadership.

Chapter Four: Findings (2)

Recontextualising and Conceptualising Leadership in Dental Practice.

“I’m sitting on the back of a bucking bronco and just trying to hold on for dear life until
I get to 6 o’clock”

(Dental Principal)

4.1 Recontextualising activity systems.

The dynamic and reciprocal nature of leadership is seen to be reinforced through the findings in the previous chapter due to the use of Activity Theory as the theoretical lens uncovering the “*multiplicity and interdependency of variables as a complex system*” (Lee, 2011 p45). Within these complex systems, noting and exploring the contradictions enabled such discoveries to be understood more deeply and gave rise to expansive learning (Engestrom & Young, 2001; Wiser *et al.*, 2019). The combination and interaction of each activity system outcome provide the overall, recontextualised outcome of the Activity Theory analysis: that of leadership in primary care dental practice.

Within this conceptual space, the richness and detail of the data from the deconstruction underwent a more abstracted, higher level analysis using the same constant comparison, cross case and deviant cases analyses as previously. In this way the findings were taken beyond each activity system and into the shared outcome of leadership; thus recontextualising and synthesising the data and emergent

conceptualisation. By recontextualising the findings in this way, the following propositions about leadership in dental practice emerged:

- Dental practices act as Communities of Practice.
- Leadership of individual dentists in Dental Practice is related to organisation and leadership levels.
- Personal context and position of the dentist (dentist as individual, dentist as clinician & dentist as business person) influences their leadership.
- Identity impacts leadership.
- Relationships are fundamental to leadership.
- Capability & flexibility are required for effective leadership.

These are depicted in table 4.1 with their associated contradictions.

Table 4.1 Propositions and their associated contradictions.

		Proposition	Main contradictions	Occurred between
Situational context	1	Dental practices act as Communities of Practice	Inter system Inter element (intra system)	RP, RS/PC Subject, community, division of labour, object
	2	Leadership of individual dentists in Dental Practice is related to organisation and leadership levels	Inter system Inter element (intra system)	RP, RS Subject, community, division of labour, rules
	3	Personal context and position of the dentist (dentist as individual, dentist as clinician & dentist as business person) influences their leadership	Intra element Inter element (intra system) Inter system	Subject Subject, object, tools, rules PC, RS, RP

Individual context	4	Identity impacts leadership	Intra element	Subject
	5	Relationships are fundamental to leadership	Inter element (intra system)	Subject, object, community, rules, tools
	6	Capability & flexibility are required for effective leadership	All levels	All

These six propositions were related to the individual qualities of the dentists (identity, relationships, capability & flexibility) and the situational context (Community of Practice, organisational/leadership level and personal position or context). The situation always directly influenced the individual, and the individual directly and indirectly influenced the situation.

These higher-level abstracted, inductively derived findings confirm that it is the distinct context of each dentist working within their specific situation, along with their individual meaning making and cognitive activities, that was fundamental to producing their leadership activities. These findings align with the constructivist and interpretivist epistemology of leadership being a social construct created by individuals within a community and being context dependent.

Case specific data were further mapped against organisational and leadership levels which enabled a direct comparison of leadership within a corporate (DBC) and independent practice. Additionally, data were considered against the Community of Practice model (Lave & Wenger, 1991), to explore the extent to which the dental practice exists as a CoP.

It was clear that all six areas influenced the combined outcome of leadership, and should not be artificially separated from one another. Future work might explore hierarchies between these and/or the nature of influence processes.

4.2 Proposition 1: Dental practices act as Communities of Practice.

A Community of Practice (CoP) as first described by Lave and Wenger (1991) constitutes a group of people who share membership of a group working together, who learn and develop from and with one another, within their situated environment (Lave, 1991; Lave & Wenger, 1991). A dental practice can be called a CoP because it satisfies the three fundamental principles (White, 2010):

1. A shared domain of interest: in this case the domain is the functioning of the specific dental practice.
2. A community: all staff are working together to enable the practice to run smoothly.
3. A practice: where all the members are 'practitioners' – in this case they are all workers or staff in the practice.

This Community of Practice is differentiated from the element of community within the activity systems; although the CoP is embedded within that element in the data.

The initial assumption for this research study was that all dentists working in practice were a culture sharing group to be studied (see methodology chapter). The data demonstrated, however, that each participant dentist developed their leadership activities in their own individual practice community because of their unique and individual reciprocal influences within it. This had greater influence on individual

leadership activity than a dentist's inclusion in the GDC registered community of 'dentists'. That is to say, who a dentist 'is', how and where they work, and who with, had more influence on their leadership than the fact that they are registered with the General Dental Council as a dentist. The individual context shaped the dentists as much as they shaped it, and thus, as described, each practice became its own ecosystem or CoP. This was highlighted across the participant data in various ways and linked to the three fundamental principles of a CoP. All related to that development, ethos, and camaraderie, shared goals and/or underpinning foundations of the specific practice environment rather than 'dentistry' or being a dentist.

The CoP influences were demonstrated across the data, evidenced in the following quotes relating to working within and developing practice philosophy; working together, being a unit and having a sense of belonging; and being aware of the local and wider community and 'outside' influences.

D1 *"I changed my working practices when I moved here ... it's been an organic process – I've moved towards [nurse]'s ways as much as she's moved towards mine. She knows the patients better. It's a small country practice – our identity matters"*

D2 receptionist: *"this practice is like a close knit team – we're like family – we look out for one another.... All the hiring and firing is done by [company name] though and it has massive impact on us.....we're really short staffed because they won't compromise and it's everyone here who suffers.... So we all just stick together and look out for one another"*

D5 receptionist: *“this is a great practice to work in. And we’re all in it together. There have been massive changes ...and it is hugely busy. It does get stressful but we all look after one another here – you need that. We all know if we need a hug or a cup of tea, or something.”*

D6: *“I assume that every practice is different and unique – that there is loyalty to the team within the practice but not necessarily to the company.... I don’t think you’ll get loyalty to the corporate like IDH or BUPA.....I created a vision – I told them I want us to be the best practice in [name]... I’ve created notices for patients and staff now because I think we could have articulated it much better at the beginning.”*

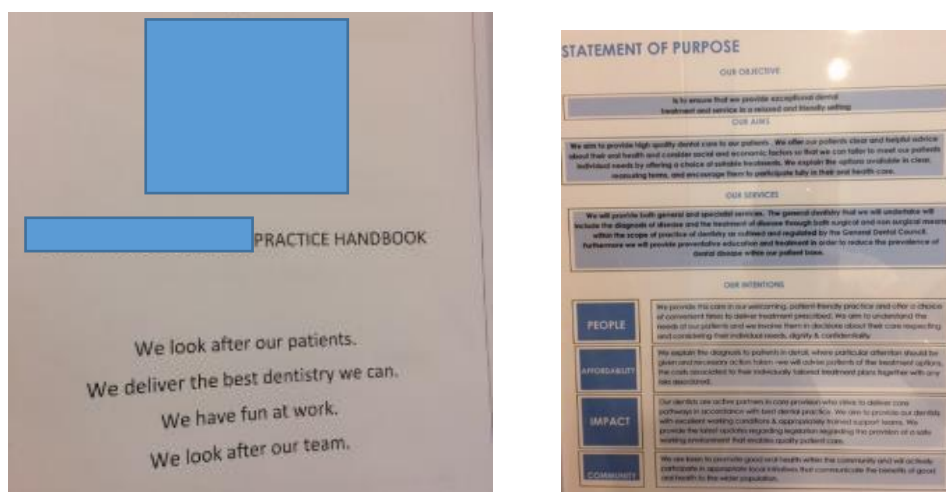


Figure 4.1 Staff notices and Practice Handbook to articulate and support the practice vision.

D7: *“I work in different places and they’re all different. Even though that practice [name] is linked to here it’s still different to work there. It’s not bad – neither is better or worse – they’re just different.”*

While this discovery of each practice being its own CoP did not alter any of the fundamental principles of the study or methodology, it did emphasise that this

research should be viewed as a series of independent case studies of seven participants across four dental practices, using ethnographic methods of exploration, rather than a full ethnographic study. It highlights and clarifies the fact that leadership cannot be divorced from the dental practice being worked in, and this is a fundamental element to include in leadership education. It may influence how and where leadership might be taught, by resituating it into context rather than artificially extracting it as an isolated phenomenon.

4.3 Proposition 2: Leadership of individual dentists in Dental Practice is related to organisation and leadership levels.

The linking of leadership levels to organisational levels was previously developed from the literature review and demonstrated their relation to healthcare generally as well as the generic dental practice context. This is presented again in figure 4.2.

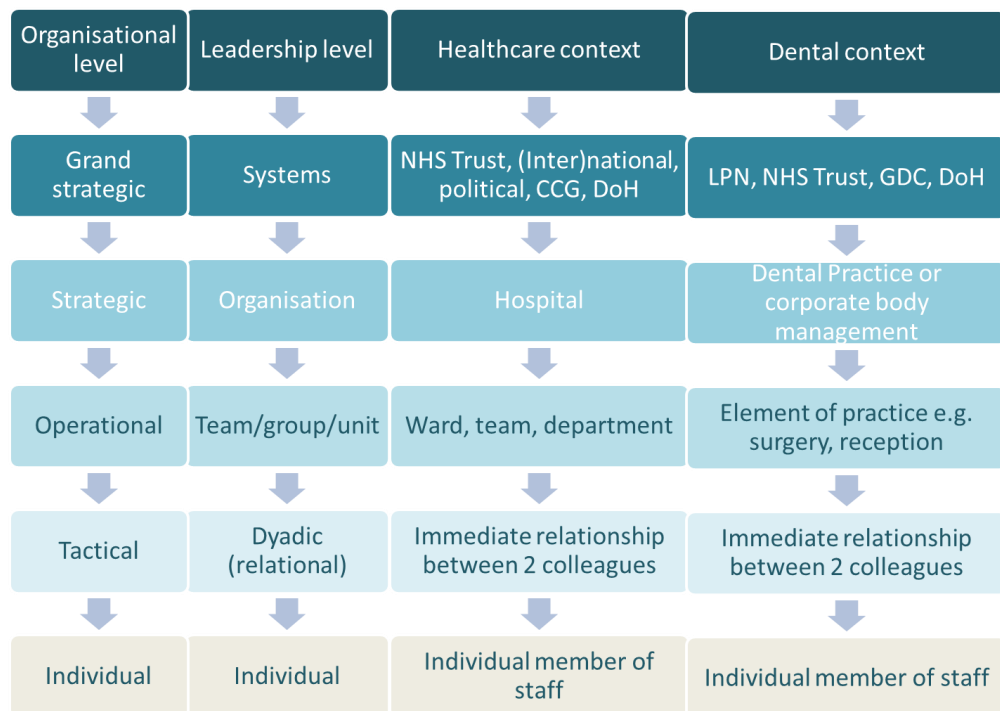


Figure 4.2 Organisational and leadership levels and how they relate to the healthcare setting.

D2 (associate in Dental Body Corporate) provided the source of the deviant case in running the surgery **and** practice systems; while D2, D4 and D7 (associates) did so in the running the practice system. Similarities were prominent across the board in cross case comparison in the patient care system. This suggested that the impact of a dentist's role in the practice (principal or associate) and the difference in dental organisational context (independent or DBC) created challenges and barriers to achieving concurrently the three independent leadership outcomes of patient care, running the surgery and running the practice. A dentist's role or organisational context therefore influences the overarching leadership activity of the dentist, which is generated through the integration of the three individual activity system outcomes. It is interesting to note again here when reflecting on the comparison with the earlier ethnographic work in classrooms rather than schools (Delamont & Hamilton, 1984), how the specific school may have influenced the classroom culture, but which seems to have been overlooked.

These findings enabled the above figure to be expanded to include explicitly the primary care dental practice³³ setting and the separation of the independent dental practice context from one that is corporately owned and run. Figure 4.3 depicts this expansion and separation.

³³ Primary care dentistry relates to dental care provided when the patient presents for treatment directly to the dentist and not via referral. It relates to specific NHS commissioning strategies and exists within dental practice and some additional services (some community services available without referral such as out of hours weekend cover, and emergency care). NHS secondary care (referral) services are available in hospitals and are therefore not considered further.

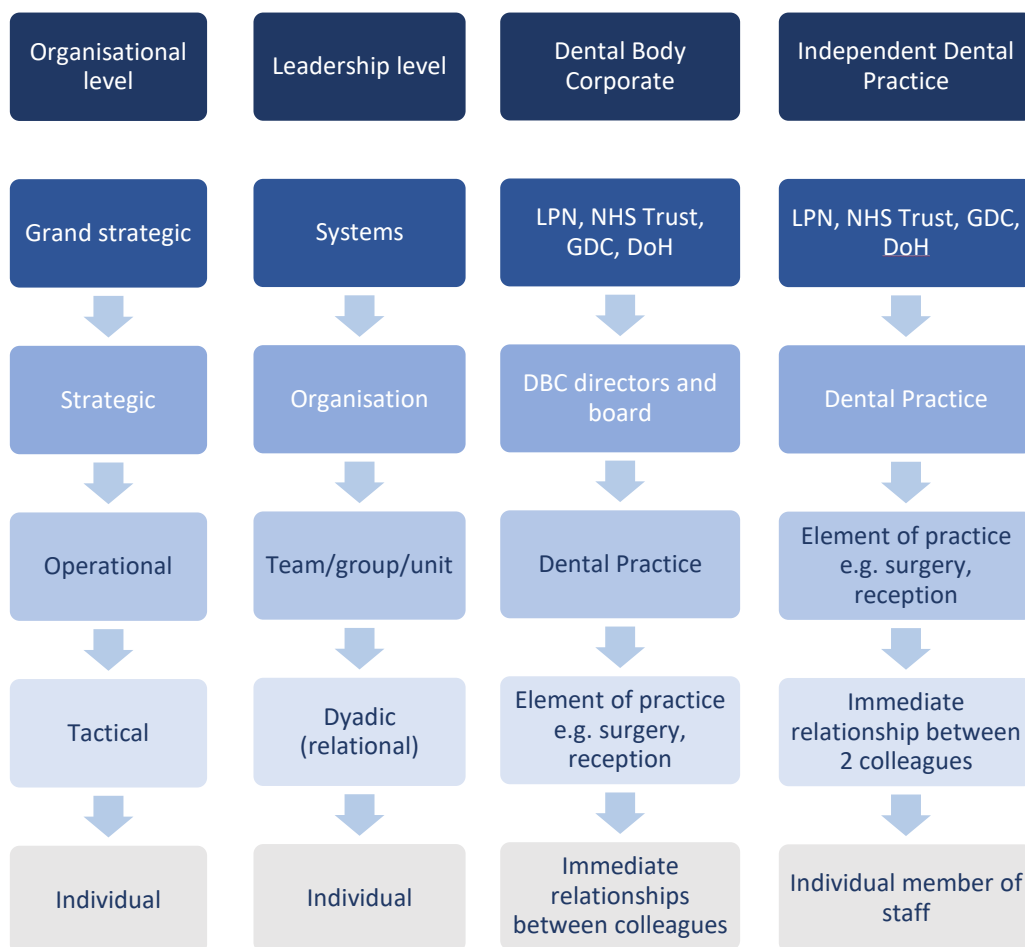


Figure 4.3 Depicting organisational and leadership levels as relating to UK dental practice – independent and Dental Body Corporate (DBC).

Figure 4.3 also reveals reasons that may help to explain why working in a DBC is reported to be a very different experience from working in an independently owned dental practice. Through the corporate nature of the business a board and/or directors are included at the strategic organisational (organisation leadership) level. This has the effect of shifting the remaining levels downwards and therefore appearing to eliminate the specific member of staff from the first and foremost individual leadership level. Therefore they are overlooked as individuals and become anonymous within the organisation. The potential for difference of experience within a dental practice was

confirmed by D2 providing the deviant case comparator across the Running the Practice (RP) and Running the Surgery (RS) Activity Systems.

Being an associate as compared to a principal appeared to bring less responsibility generally, as highlighted by D5: *I still work as an associate in [different practice] and no, I don't feel as much responsibility for it at all. It's not my remit*". In the case of D2 working in a DBC, however, lesser responsibility also appeared to bring diminished levels of autonomy, ownership and job satisfaction. This in turn led to a level of disengagement from 'giving back' or 'belonging' to the organisation.

D2 [DBC] *"It never really gets back to the top.... so you lead what you can and give up fighting for the rest of it. You have to look after yourself...I certainly don't have any loyalty to [company name]. We should all be a team... but that's another thing that's imposed on us here we're not in control of..... We keep saying we need a decontam nurse, but they don't want to know."*

This downward shift of levels also means that dentists working in DBCs have their working relationships with colleagues depicted at the 'individual' level of leadership. The relational (dyadic) aspect of leadership in a DBC then comes from between areas of a practice rather than between people, again meaning the specific individuals appear to be overlooked and disregarded. For example, relations between the patient treatment room and payment area are noted as the functional dyadic unit and each person in themselves becomes just 'the dentist' or 'the receptionist' or 'the nurse'. From an organisational point of view this may not seem important, but from the participant and leadership perspective this anonymity was seen to impact the building

of relationships within and external to the practice; engagement with staff training/teamworking; attitude to the work, staff and business activities; and the logistics of the patient care experience.

This feeling of anonymity and the individual not being important may also underpin the active disengagement that was noted clearly in the Running of the Practice activity system. The distinct contrast between the active disengagement in a DBC and the more passive disengagement of associates seen in independent practice was evident, and is highlighted in the following extracts.

D2 [DBC] *“So [company] want to make money and want us to sell this ‘Zoom whitening’..... I’m not going to sell this kit for them..... I’m working with a nurse I don’t normally work with I’d like to sit down and do some training, but there’s just not time – so I just don’t mention her shortcomings, so that’s not really good for anyone is it – but what’s the point? They won’t thank me for it; and she might not even be interested. They’ll pay her whether she’s good or hopeless! I’m not sure if I’m fussing over her too much, but if I don’t I might not get through the session.”*

By contrast an associate in an independently owned practice although passively disengaged, may still be motivated to support the principal in the running of the practice.

D4 [independent associate] *“D5 inspired me to become a dentist. I’m always going to try and do the best for him and the practice. I paid for my cosmetic training on Harley Street because he wants to be able to say that his team are Harley Street*

trained. Yeah – I don't mind. I mean he's giving me the opportunity to do this isn't he? So I guess it's a two way thing."

While in this case D2 did not pose a deviant case in the patient care activity system, a lack of belonging, a reluctance to give back, and clearly demonstrated dissatisfaction may lead a dentist to want to leave a job. If they do not leave, continued negative feelings may have a bearing on some of the important elements of the individual, increase stress and discontent and result in an inability to focus on the patient. This will then automatically impact the patient care activity and ultimately negatively impact the care of patients.

D2 [DBC] *"I have no sense of wanting the company to do well....or to do anything for their benefit because I don't have any say....I've never met the CEO or MD – they're just names. I do it all for the patient benefit."*

Figure 4.3 also helps to depict how the first two activity systems (patient care and running the surgery) operate across individual, dyadic (tactical) and team (operational) levels; while the third activity system (running the practice) engages activity at an additional organisation (strategic) level. The data support this finding and it has already been noted that principal dentists are engaged with the third system while associates are passively or actively disengaged. This impact was implied by principal participants during VRE sessions as potentially having profound consequences on both the individual dentist and the practice, especially relating to business aspects or making profit or loss.

D5 *“Lack of engagement of associates is not good for the practice if dentists are changing all the time you’re not building that long term relationship with the patient which is so important.”*

D3 *“I involve the associates in how the practice is moving forward for them. I want their individual plans to link with practice growth. I feel like we’ve got the support of the staff then to diversify.”*

It was also explicitly noted from the associate viewpoint; D4 *“All I focus on is patient care – the money side of things is all done by reception.... My problem is that I don’t talk about money at all so if the patient needs a little something, sometimes I’ll just do it and not charge them although I suppose the bosses wouldn’t like to hear me say that!”*

This expanded model of primary care dental practice against leadership and organisational levels has revealed areas that may benefit from future work. These may include enhanced education of business elements of leadership including how the financial aspects of patient care and business relate explicitly to a dentist’s clinical work. Further work may also be undertaken with DBCs to identify ways to improve the experience of their staff and enable them to be acknowledged as individuals, rather than anonymised. This may help associate dentists in a DBC to enhance their working experience through greater engagement in their Community of Practice and therefore their continuity of employment and care for patients.

The emergence of this proposition has enabled a deeper and richer understanding of dentists’ leadership across the remit of independent and non-independent dental

practice to be realised. These findings suggest that leadership education should include the consideration of the level each individual works at along with the level of others in their teams, as well as the context of the practice worked in to enhance dentist' leadership performance. The ideas of context and leadership levels should be introduced into generic leadership education.

4.4 Proposition 3: Personal context and position of the dentist (dentist as individual, dentist as clinician and dentist as business person) influences their leadership.

The personal context or positional stance taken by the dentist (as an individual, a clinician or a business person) in their work was seen to create multiple conflicts across all areas of leadership activities. Very often the three contexts were working tacitly alongside or against one another during the working day, but when the dentist was more aware of their stance, it empowered them to deal with such tension more explicitly.

For example, D3 discussed their response to a specific situation relating to a child patient.

"I have a real emotional reaction to patients. Like to a parent when I see a child with decay and I get upset that they're putting me through this and I have to deal with it."

As an individual, the dentist had an emotional response towards the situation through knowing the harm caused to this child is preventable. As a clinician, the dentist was trying to remain calm and caring, focussing on supporting the family through making clinical decisions with the parent on the best way forward. As a business person, the focus was on personal income and/or the most efficient way of

working for the practice to profit (financially and in reputation) from this episode of care (which normally would be very time consuming and poorly remunerated) so maximising benefit while minimising time and expensive resources.

Emotional reactions could have stemmed from any of the three dentist positions, but the majority in this study were demonstrated via the dentist as individual: *“People can come across as slightly rude and it makes you sit back a bit confronted” (D7); “as a neighbour this guy is lovely – as a patient he’s a nightmare” (D1); “I hate the way she is slagging off another nurse in front of the patient I can tell that I am angry” (D2).*

The clinician and business person stances were observed as less ‘emotional’ and requiring high degrees of emotional intelligence and emotional labour (Codier, 2014; Goleman, 1998; Haver *et al.*, 2013; Nicolson *et al.*, 2011; Rajah *et al.*, 2011). Such emotional labour and intelligence involved successful self-regulation and explicit self-awareness, alongside being able to manage the patient’s emotions and the potential conflict the situation may provoke (Iedema’s ‘immaterial labour’ (2006)).

D1’s Associate: “One patient can ruin your whole day. You just have to go home and cry and then slap the smile back on and “hello”. It’s a hard profession.”

D2 “I’m feeling stressed here and trying to maintain/pretend a feeling of calm....you’ve got to be a fantastic actress even when you’re really stressed.”

The perceived need for a lack of emotional reaction for the dentist as business person was highlighted by D2, when talking about her impending maternity leave; *“I won’t change my mind about coming back quickly. I’ve got to run a business - there’s no emotion in this!”* Principal dentists have been seen already to be more engaged

with the business side of leadership across all systems, while associates were less engaged. Principals also demonstrated the sense of always being 'on duty', with no time off to satisfy their individual needs.

D3, "I always want to be available for my staff – I could have had a cup of tea there but I rely on my staff's loyalty for the practice to function so I want to be there for them."

D1 "I sometimes go into [name] associate's surgery, and if she hasn't got a patient she might be surfing the net, or reading a book whereas I will be running round like a headless chicken or responding to an email."

For the 'dentist as clinician' position there was also seen to be conflict between optimal clinical care and either the patients' ability to afford it, the specific remuneration available or the patient's perception of the suitability of the fee being charged. The patient care level of activity with dentist as clinician demonstrated this more in relation to patient satisfaction than business, although principal dentists (dentist as business person) were very aware of the financial implications of an apparent lack of efficiency, and these two stances were often seen to be at odds with one another.

D5 "...there's a huge conflict between clinical care and what you can actually do for a patient. If you save a tooth rather than take it out then the NHS won't pay you for it if you use certain materials. You have to tailor treatment to the patient's financial constraints."

D1 "I'd like to say it was my exceptional oral surgery skills that made this look so easy – but it was one of those you don't want to take it out too quickly because you're charging them!"

One of the biggest tensions demonstrated by associates and less experienced dentists was marrying up their personal views on charging patients for healthcare, earning a living, the patient experience and recognising that it is ultimately the charging of fees that makes the business profitable. Anxiety was often demonstrated by associates when being asked to consider the business aspects of dentistry – something they did not consider as part of their job.

D7 "Charging patients is not dentistry....if I got to the point I needed more money; that I struggled for money, then it's like, downsize the house And that's when I start to feel bad because I'm going to be giving him this big bill and so you end up trimming it down for them....and then that's probably not so good for the business... I should think about it [the business side of things] more, but really don't want to."

D3 "I want to make sure that people have the time but also being aware of my day, and also for costs. I can't give everyone whatever time they want. My book is the biggest challenge in the last few years... patients have had to be very flexible... I added the co-ordinator space for patients who wanted extra time to speak to a nurse - then I didn't have to run late."

D6 "I don't have a 5 year plan for the business but I need to be making money before then or I will go bankrupt. As a principal you have to think about the future not just the present."

During the working day all participants demonstrated all three of these personal contexts or positions: dentist as individual, as clinician and as business person. All three directly influenced their activities (consciously or tacitly) and were recognised through the Activity Theory analysis as catalysts of conflict or tension. Many times there was dynamic shift among and between the three positions, often leading to confusion or stress in the participant, which was observed and noted in behaviours and VRE discussions. To manage these issues successfully, high levels of emotional intelligence (including self-awareness and self-regulatory strategies) and emotional labour were perceived to be indispensable.

Within the corporate setting D2 was again actively, rather than passively, disengaged with their 'business person' position. This may be due to receiving a salary at the end of every month in contrast to being self-employed and receiving income related to the work completed. Whatever the reasons, this led to conscious decisions which impacted negatively the business, such as the agreement to not charge the company set fee explained by D2.

D2 "There is a private fee scale set by [company name] and it will come up on our screen....but it's usually ridiculously priced so we kind of have an agreement amongst the dentists that we all pretty much undercharge."

It was observed across all participants that the better the quality of the materials and equipment, the better the experience of dentist as clinician, although there was occasionally conflict with dentist as business person due to costs and overheads.

D5 "I'm doing a bit of sales here – never a hard sell, but it is important that patients know what is available. We have spent a lot of money on kit – we need to use it....Then you also need to try and get the patients out without making them feel rushed."

Lack of availability or poor quality of materials and resources was reported to influence directly the dentist 'as individual' with regard to their feelings of wellbeing, and 'as clinician' relating to their care of the patient. Principal dentists tended to have more power over these issues than associates, who very often had to find alternative solutions. While materials and equipment had an explicit financial impact, it was deemed important to show patients that the practice was investing in their care, while also being able to 'balance the books'. There was no doubt that being able to have access to high quality resources improved the dentist's experience of work overall.

D2 "I've bought some of my own kit that [company] wouldn't and I'm very protective of it. You give better quality care with better kit... Using a really cheap alginate is false economy. Because it takes 4 to 5 attempts – wasting time and material – but if we had a better material we could do one, well. It hasn't helped me personally because it's hugely expensive, but maybe that's the price you have to pay?"

D5 “I sign off the ordering or it can get out of hand...but I try to allow my staff to have the materials they prefer – within limits.”

There is clearly a need to enhance dental leadership education by explaining how charging and funding relate not just to the business side of being a dentist, but that they impact the individual and the care provided as a clinician. Helping dentists to become comfortable discussing payment and cost with patients therefore needs to be included in leadership training activities. Education to support enhanced self-awareness and attitudes to money in general and payment for healthcare in particular, may reduce the tensions for dentists when experiencing the movement between the three positions required of them in their work.

The risk of patients’ complaining about treatment or costs is ever present in primary care clinical practice. Leadership training should also embed strategies to enhance dentists’ emotional resilience to deal with such risk, anxiety management to enable effective clinical practice, and opportunities for individuals to explore the alternative positions of individual, clinician and business person when at work.

4.5 Proposition 4: Identity impacts leadership.

Dentists demonstrated various personal and professional identities within their daily actions. Explicit and conscious development and self-awareness of these identities influenced their leadership activities. The internal conflict created in the individual between the personal and professional identities often led to stress or anxiety. This concept links with the previous section’s personal position or context of the dentist, and many of the same metacognitive strategies discovered there are

relevant here. Within each of the previous contexts (as individual, clinician or business person) a dentist will display or rely on their personal or professional identity. Dentists might be acting 'as individual' from a personal identity viewpoint while concurrently reacting 'as clinician' from a professional viewpoint, or vice versa.

This can be seen in the following excerpts from D2s field notes, video observation and VRE reflection, with the breakdown of personal context and identity explained in table 4.2. Within D2's practice, all communication between reception and surgery was made via instant messaging on the computer, or by telephone. There was no face to face interaction during the treatment sessions. Earlier in the session there had been an issue with the electronic form completion in the surgery that had created problems for the receptionist's paperwork. The receptionist was getting more and more agitated that they were unable to complete their paperwork, and was sending instant messages about it as the fix needed to be completed on the patient record by the dentist in the surgery to enable the next stage to be completed at reception. D2 was already running almost 30 minutes late, with numerous patients waiting and was focusing on the patients and their clinical care. Fixing the IT issue was not straightforward, and would lead to D2 interrupting their clinical schedule further, and concentrating on administrative procedures maybe for some minutes. This would cause them to run even later than they were. The earlier patient had not been impacted by the issue, and had left the practice none the wiser. The issue was therefore not seen as urgent by the dentist, who was prioritising patient care over business paperwork. The receptionist would send instant messages to D2 for various things, including this issue, as required.

The reaction to the messaging in the surgery was observed and commented on as troublesome for D2.

D2 FN entry: D2 seems to be interrupted a lot by the instant messaging system on the computer. Receptionist getting extremely agitated about a mistake in an earlier patient's charging form and has sent messages.

In surgery D2 says "what was that ping? [looks at computer] send him back a big N-O!" [reactions: personal identity, dentist as individual] "No, don't really" [reactions: professional identity – dentist as business person].

D2 can be seen to have been distracted from the patient care and writing notes (seen in the still images below) by both the instant messenger and the telephone during the session being filmed.

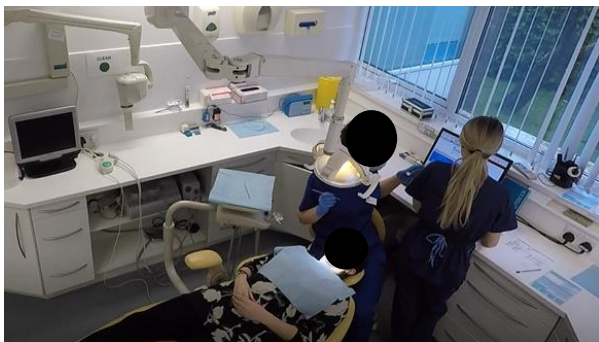


Figure 4.4 Dentist being distracted by outside interruptions.

D2 [VRE] "Of course I didn't know at the time what he wanted! Not all the messages were about that, one or two but they were about all sorts of things – 'how long will you be?' 'You're running late' 'Can you see them next Tuesday?'... there's so many distractions you never get that quiet to concentrate on surgery....[phone rings in film] 'Go away I want to do my job'!

Table 4.2 Identity and personal context working together.

	Individual	Clinician	Business person
Personal identity	Reaction to noise of intercom, interrupts thinking causing dentist to look and give a frustrated verbal reaction 'send him back a big N-O'	Immediately turns to look at screen, taking focus away from patient. Frustration about amount of distractions taking away from patient focus	Lack of engagement about patient charges, form filling and need for business to function smoothly in that way. Did not want to take time to know issue at that moment
Professional identity	Overriding the initial emotional reaction 'No don't really'	Ignores intercom requests and returns to focus on patient	Calls reception back on phone when patient has left to engage with practice administrative activities

Personal identity was often explicitly highlighted during participants' reactions in VRE sessions to their physical appearance and/or demonstrated behaviours. These are the higher order thoughts that have become apparent within this 'space of transformation' and meta-analysis of their own activities – the very foundation of the VRE methodology. The dentist's personal identity demonstrated a fundamental influence on leadership within dental practice across all three systems. This related to their own physical, psychological and sociological perspectives and preferences, their knowledge base, ability to recognise stress and competing priorities, motivations and awareness of their impact on a situation and on others. While this may in part be artefact from reaction to watching a video of self, by making visible the previously hidden, participants were able to explore this and gain a better understanding of their reactions.

D1 *"I should stand up straighter – I'm a sloucher; I don't want to work that fast – I've lost enough hair already; I can see I've started to get stressed here – I've stopped using the bin and started to use the sink instead. And I've stopped saying please and just saying 'can I have?'"*



Figure 4.5 Depicting dentist using sink instead of bin as reaction to feeling under pressure and stress.

Personal identity often aligned with dentist as individual and was frequently at odds with professional identity and dentist as clinician or business person. This is noted, for example, in D5's anxiety about carrying out a clinical procedure alone and wanting D4 to be with her; *"...you will be there while I do this won't you?"* D4 *"yes, I'll be around, but you need to do it and you need to make sure your patient has trust in you; so you can't be looking all worried like this!"*

Professional identity took on varying levels – one when the patients were in the chair and one when the patients were not there. There was cross case alignment that when a patient was in the chair all dentists were mindful of how they wished to be

perceived and how they acted and spoke. When a patient was involved, the entire focus was on the patient. Once the patient had left the surgery or practice, the main difference in professional identity was demonstrated between associates and principals. Principals seemed to always be 'on duty'; there was no down time and their professional identity was intact for the entire period they were with staff and colleagues. They demonstrated a more explicit awareness of their professional identity and its formation and evolution than associates.

D3 "Patient management is something we learn at dental school. The rest comes with experience. You can be a boss and still be respected, but you can't always be liked. I wish someone had told me that early on!"

*D1 "I'll try from a leadership perspective to make sure I do all the crappiest jobs like the suction filter, I'll clean it myself. It's a horrible job, I know it's a horrible job, so I'll do it because it shows that I'm prepared to do that crappy job and if you do it they'll be happy to do the other stuff..... I've learned over time and from different bosses...the one who does everything then tells you about it afterwards is the worst one. It's really confrontational. One of the guys I worked with on the NHS got away with treating people like s***. He extended that attitude to his patients when he converted and blew two and a half lists of private patients! I thought I could work with anybody – turns out I can't. I know what kind of boss I want to be."*

D5 "I like acting as a mentor for my younger colleagues.... empowering them to get on with it on their own without me checking. I prefer a more fun style of leadership. D6 is the control freak!"

This does not mean that by maintaining a professional identity the communications were not friendly. D1 receptionist talking about dentist: *"D1 seems too nice to run a practice – you'd think he'd need to be more cut throat."*

Principals maintaining their professional identity is clearly illustrated by the following account. D1 had an accident with the research camera when the nurse knocked it off the cupboard. Nurse and D1 repositioned camera, laughing and relieved that it didn't break.

Nurse: "Good job I've got big boobs so it didn't break" D1: "As an employer I think the best response to that is no response!"

D1 reiterated this during the VRE session: *"Oh yeah, that was quite amusing. How to break the expensive equipment! As an employer I'm not quite sure what the appropriate response to 'I've got big boobs is'.... But no answer is the correct answer, I think".*

On the other hand, associates tended to maintain their professional identity with patients, and rely more on personal identity between patients and at break times. This was highlighted during VRE sessions to have pros and cons for the dentist leadership activities.

D4 "I have a friendly relationship with the nurses – they're just nice girls – I eat with them at lunch and everything – I think it's important. But when I came here

first I did notice that some of the kit wasn't getting cleaned properly or fully set up. I had to say something and things have got better...although I suppose I'm not 100% myself anymore at work, and we are all friendly but less friends if you know what I mean? I had to work on being the one in charge..."

There was some degree of professional identity related to the titles and names that were used with and by one another. While this was not always consistent across participants, some reaction to the professional title used was seen in all participants.

D5 Practice Manager *"Yeah – we always call D5 & D6 [principals] 'Doctor', but we call D4 and D7 [associates] by their first names. We're all called by our first names. And we refer to the dentists in conversation with ourselves and patients in the same way. I wouldn't dream of calling Dr R [name]!"*

An unexpected aspect of identity impacting the leadership activities was related to gender. This was reported by a female principal about the effect of not having female role model colleagues to talk to about things; and also of being pregnant.

D3 *"It was all positive, the practice was growing and expanding and then I got pregnant. It had a real influence so I wanted 2 close together to enable me to then settle down and get some stability after the transition phase.... I think it throws up how difficult it is being a female in practice and how a career break can change things....."*

One participant noted the reactions of patients when they are still surprised or uncomfortable to see a female dentist, especially if they appear young.

D4: *“Some patients actually ask if I’m sure about something when I don’t think they would question a man. When I meet new people and say ‘I’m a dentist’ people always ask – ‘What a real dentist? Do you mean a dental nurse?’ It can be annoying – but you get used to it”.*

By the same token D7, as a younger male dentist, noted the impact of gender on his relationships; *“You have to be careful because you hear of so many dentists who married their nurse!! I don’t want to give the wrong impression, but I’m just myself and I like a chat...”*.

Related to identity, personal and professional, is the individual’s attitude to work. The level of ownership over their role; what work ‘means’ to them; and how it relates to who they are, thus informing their identity. All participants demonstrated an evident sense of ownership across multiple aspects of their work, including in their relationships with patients, nurses and their working space, referring to them as *“my patients”*, *“my nurse”* and *“my surgery”*. Principals tended to refer to other staff as part of *“my team”* or *“my girls”* and reported a deep-seated sense of allegiance and connection to the practice. Ownership tended to go hand in hand in with a heightened sense of responsibility.

D3 *“I felt a real ownership of the practice once [previous owner] stepped away. It is quickly becoming my practice rather than [name]’s”*

Ownership can be a positive driver not only for engagement but for productivity, and is aligned with and supported by authentic leadership models. ‘Psychological

ownership' in the workplace (Dawkins *et al.*, 2017) is talked about as possession, which aligns explicitly with this finding of many dentists relate to areas of their work as "my".

Ownership can, however, have deleterious effects in a system that is shared with other members of a team; and create rather than break down boundaries. Where other people are subject to this ownership (for example staff referred to as 'my girls') it can lead to divergent reactions. Dentists need to be mindful of the potential for causing offence, or being seen as authoritarian, domineering and selfish, as opposed to inclusive. The psychological ownership literature reinforces the issue by highlighting the positive and negative aspects of such ownership, the fluid nature of ownership, and challenges to ownership when change occurs (Peng & Pierce, 2015; Wang *et al.*, 2019). This was echoed in D1 having to work in a surgery that wasn't 'his', dentists working with nurses who were not 'mine', and the common challenge of seeing 'someone else's' patient.

While the dentist is seen as responsible ultimately for the performance of the clinical team in the surgery, across the wider practice overall responsibility seems to lie with the practice owner, whether that is the principal dentist or DBC management. Where roles and responsibilities are shared across the team (for example ordering stock, completion of paperwork, taking money and banking, hiring and firing), each individual needs to take ownership of their various roles for it to be most effective. Dentist leadership needs to align with the requirement to optimise such ownership over mere accountability (Tye & Dent, 2017) in themselves and others. Such employee ownership within a culture aligned to Authentic Leadership principles, supports a shared leadership and flattened formal hierarchy.

Consequently, dentists need to be able to respond effectively to others being in 'control' and demonstrate followership, even if they ultimately take responsibility for the outcomes. For some, this may require a "*challenging journey of self-examination, reflection and exposure to many different leadership experiences*" (McKimm & O'Sullivan, 2016 p897) to enable them to respond appropriately. While a practice manager (PM) helps manage workload for the principal dentist, if the practice manager is not a clinician, this creates a need for greater 'boundary spanning' in communication within the CoP. Some dentists do not respond well to a PM due to feeling there is a lack of 'positional legitimacy' of a non-clinician having authority to tell them what to do. There may be a perception that practice managers "*lack meaningful authority*" (O'Riordan & McDermott, 2012 p635) as they are seen as executives rather than clinicians; while the positive impact of a practice manager may be recognised in their explicit management training, including detailed understanding of employment law, finance and acceptable work practices. These skills are fundamental to dentists who are embarking on running their own practices, although there might be the view that they are less valuable or respected than their clinical skills and they may feel that they do not have the time or motivation to learn them (O'Riordan & McDermott, 2012). Positional legitimacy is reported in the literature to recognise both these areas of positive and negative impact (O'Riordan & McDermott, 2012), and these will impact ownership and may form a tacit underpinning of an individual's identity.

This proposition establishes that personal identity (who I am) and professional identity (observed as: who I should be, who I want to be, who others need me to be) convey reciprocal influence and impact a dentist's leadership activities. Self-awareness

and self-regulation (key aspects of emotional intelligence) are imperative for continued and explicit self-development of identity; personal and professional. Education needs to support individuals in discovering and evaluating how their responses relate to their personal or professional identities. Very often the immediate response is a personal one which may or may not be appropriate in a professional situation. An instant reaction may be replaced by a different, sometimes more appropriate professional response. Supporting students to develop insight and ability to self-critique instant decisions and instinctive reactions; to take a step back and review a situation before responding, and to have the self-control and self-awareness to deal with the consequence of acting within or against sometimes deeply held and unconscious personal values and beliefs will be fundamental for leadership education.

Development and maintenance of professional identity is, however, a complex and multifactorial process that takes time and involves the integration of personal and cognitive development, personal identity formation and socialisation processes (Cruess *et al.*, 2015; Pulkkinen & Ronka, 1994; Vivekananda-Schmidt *et al.*, 2015). McKimm & O'Sullivan (2016) report this as "*learning to be and become a professional*" (p897). The more an individual is socialised into the dental environment, the more explicitly their professional identity will develop and become deliberate and conscious (Cruess *et al.*, 2015). With this in mind it is proposed that less experienced dentists who become principals or practice owners early on in their careers may suffer more negative impacts from this tension and this may explain why principals appear to be more aware of their professional identities than associates.

Developing awareness of the importance of creating and maintaining a professional identity may help less experienced dentists, through considering their individual thoughts and reactions against those seen as the necessary professional responses. It may identify and make conscious the link to their personal identity and whether the professional identity is congruent or incongruent. This will help to avoid and reduce the impact of unconscious internal and relational stresses that may affect their performance and lead to further mental health issues.

That Professional Identity Formation may be a major factor in the difference between principals and associates may help associates and less experienced dentists to engage better with organisational level issues such as staff training. It may also support them building working relationships; recognising and managing their position within the CoP; identifying and managing their feelings towards finance and business for themselves and the practice; and taking responsibility for leadership.

Tension can occur in medical teams when the doctor is expected to take a leadership role but does not step up to it (Sims *et al.*, 2015). The dentist will be expected by many to be that team leader (Sims *et al.*, 2015) in the practice situation whether or not they wish to inhabit that identity on a personal level. Dentists in this study suggested their preparation for such a role is experiential rather than formally learned, much like other healthcare workers in privately funded primary care practice, such as GPs in Ireland (O'Riordan & McDermott, 2012). This lack of experience along with the sense of role overload and work life balance issues (noted in the findings as well as literature) may be reasons that new graduates do not wish to take on leadership roles of principal/practice owner.

Providing opportunity for dentists to reflect on and explore the issues around formation of a professional identity may support less experienced dentists to consider taking on more challenging roles. Without such preparation and due to the time consuming, experiential learning of leadership skills and socialisation, less experienced dentists may otherwise be sensible in hesitating to rush into principal positions. They will be better at leadership as they become more experienced and develop their professional identity. Support for dentists to develop a professional identity may alleviate some of these tensions and increase the likelihood of less experienced dentists taking on such leadership roles successfully.

Accepting responsibility in and out of the surgery environment to behave as the dentist's professional identity demands, was noted to affect personal relationships and dynamics between dentist and colleague, dentist and patient, again mirroring the literature (Doniger, 2013). It has been noted that dentists may not inherently have strong leadership skills as those needed for dentistry are in contrast with those reported to be required for leadership (Nalliah, 2016). Dentists' personalities may make them more prone to perfectionism, having unrealistically high expectations and an aversion to failure, which are all the antithesis of qualities needed for leadership, so increasing the risk of burnout (Larbie *et al.*, 2017). The job of dentistry itself creates further conditions in direct contrast to those required for leadership including putting patients first – the opposite to self-care; sharp focus and competition which decrease relationship and emotional skills; and the authoritarianism of dental practice (the contrast of shared and authentic approaches), meaning it is easier to hide problems for

longer (Larbie *et al.*, 2017). This would imply that dentists' leadership training needs to include support for explicitly developing their professional identity.

4.6 Proposition 5: Relationships are fundamental to leadership.

Leadership has been conceptualised as a socially constructed reciprocal influence process (see chapter 2) and the quality of the dentist's relationships was shown to have significant influence across all activities.

4.6.1 Dentist-nurse.

The dentist relationship with the nurse was shown to be fundamental. Some differences were noted between the patient care system, and the running of both surgery and practice levels of activity. Although relationships between dentist and nurse could take on a wide range of forms, they usually tried to maintain a friendly rapport. There were, however, quite clear boundaries about the nature of the relationship and what could be discussed between them and when. Principal dentists seemed to maintain these boundaries outside of the patient care situation more so than associates. This is highlighted in the following participant quotes.

D3 [principal] *"I grew up with [name] and we both worked as dental nurses for [name] before I went to Uni... I wouldn't say we were friends at work now though because I'm the boss, aren't I?"*

D7 [associate]: *"I like to get to know all my nurses. But we won't chat about personal stuff while the patient is in the chair. Of course not, that wouldn't be professional."*

Regardless of whether the dentist-nurse relationship was established on personal or professional characteristics, the fundamental foundation was trust. This trust needed to be reciprocal, meaning participants had to have trust in their nurse and also be seen as trustworthy by their nurse. This highlights again the reciprocal influence processes involved in leadership. During the patient care activity the nurse was there to look after and support the dentist in their clinical role, who in turn had to trust the nurse to know how and be able to perform their part. The nurse was required to be constantly vigilant, supportive and one step ahead.

D4 "...you can see the nurse is handing me things before I've asked – I don't know how – it just happens!"

D6: "I presume I said something to her [patient] before I dropped her back in the chair again, although [nurse] is ready – she knows that's the signal"

D2 "I haven't worked with this nurse before. Communication skills are vital, especially if your nurse is needy or if you don't know if you can trust them. I can't believe this though – it's chitter chatter all the time. No wonder I was exhausted!"

D3 "When we work together now, we don't need to speak most of the time because we both know the other so well. It works for us, because we have a mutual respect"

Outside of the patient care activity and across both of the other two systems (running the surgery and running the practice) nurses needed to be able to trust that the dentist would provide support and 'care' for them when needed. Nurses also needed to feel that they were given the freedom and respect for their ability to carry

out their role, and take the lead in some areas where appropriate. Many of the dentists consciously worked on ways to optimise this feeling.

D6 *“Once your nurse starts having a meltdown it all goes to pot – you need to look after them.”*

D1 *“Nurse [name] is doing that without me interfering too much – well at all actually – to the point that if I try to help her she gets quite cross with me and says that’s her job and her territory!”*

D2 *“...to be honest, if she’s happy and calm then I’m happy and calm.”*

D6 Field Note entry: *There is a huge amount of trust in patient care that both dentist and nurse will fulfil their roles. When that’s not there, the day seems to become much more stressful for the dentist – they’re doing 2 jobs and managing how not to offend/upset the nurse while they also micromanage!*

Where the dentist’s unique and close relationship contained a personal friendship outside of the workplace, mutually acceptable boundaries had been explicitly or implicitly arrived at, meaning this had a positive impact on the relationship within the work environment. It was also openly discussed that the dentist/nurse relationship had a more constructive impact on activities when the relationship was positive and when it had been nurtured over time. Where the dentist/nurse pairing was new or less familiar, contingencies were often made to replace, confirm or build an equivalent to that trust.

D1 [principal] *“[Nurses’s] husband helped remove my old OPG machine and put in new scanner and her daughter is my cleaner at home. You spend a lot of time in a*

small room with one person so I always try to get to know as much about their lives as I can. You haven't got to be friends, but in a room that small, it's a lot easier if you are... I think that's quite important if you want somebody to get on with you and trust you."

Within more experienced and longstanding relationships the pairing had developed their own language, communications and ways of working together. There was often surprise reported by participants at how much the nurse did in the appointment and surgery, which highlighted how much of this relationship is developed and nurtured unconsciously.

D5 "This is one of my apprentice nurses and what's really coming across is how good she is."

D1 "Can I take this video to show [nurse]? I think it would be amazing for her to see how much she is doing – and I could also say thank you. You forget how much they do."

D7 "Look at her – she's here there and everywhere making sure I'm ok. I'm not sure I realised quite how much is done for me without me even realising."

Gender may affect the dentist's building of relationships with their dental nurse. Freeman et al (2004) explored dentists' interactions with female nurses and noted the tension for male dentists to get the balance between friendly or flirtatious at best, accused of sexual harassment at worst. In addition, female dentists may have problems when "*flitting between friendly and business-like*" as they try to work most effectively with their nurse (Freeman *et al.*, 2004 p164). Doniger (2013) reported that

female dentists may use different leadership styles to males (transformational over transactional; participatory over authoritarian; collaborative over unilateral), and often wish to have more friendly style of relationship, but this can lead to issues if the response to that friendliness is not supportive of doing the job. As there are more female dentists now, the stereotype of a dental nurse being a young girl working with an older male dentist can, and should, be challenged. This working relationship is one that needs to be included in dentists' leadership development to support a model that is fit for purpose in today's diverse and inclusive society. Additionally, the reaction of patients towards the gender of a dentist has been noted above, and there is potential for reaction to others in the CoP.

The dentist nurse relationship could help or hinder all activity, with the patient care activity being the most sensitive to this relationship. It was interesting to note how many of the dentists recognised how good their nurses were and appreciated them more after watching the video. Such a finding in this proposition highlights one of the positive impacts of using the VRE technique, to enable individuals to recognise things that may otherwise remain hidden in their daily work practices. This also suggests a potential opportunity to use video clips and VRE methodology as a leadership development tool for both teams and individuals.

4.6.2 Dentist - practice and staff (internal community).

In addition to the close relationship with their nurse, the dentist's other relationships to those within the practice, as well as with the practice itself were seen to influence leadership. It was clear that principals were more explicitly affected by the

physical space of the practice than associates, but this may be expected as they have a financial investment in it.

Principals demonstrated a more explicit understanding of these internal community relationships as a positive influence on their leadership activities – this may be related to their heightened awareness of professional identity and always being ‘in role’. By contrast, associates demonstrated, but did not explicitly allude to, the need for positive relationships with other staff (such as receptionists). As associates these wider team relationships seem less important and became more implicit. This may be due to their varying levels of active or passive disengagement from the running the practice activity and seeing themselves working for a practice and relying on their personal identity outside of patient interactions.

D5 “I’ll always see the reps. Loads of dentists won’t, but it’s nice to be nice to people isn’t it? And it’s good for the practice because reps can have influence!”

These internal community relationships (including with other nurses, colleagues, practice managers, cleaners) heavily impacted how well the practice as a whole functioned on a daily basis. Daily functioning also depended on loyalty and relationships toward, and between, the other staff members. Dentists tried to keep out of internal staff politics and make sure that any personal issues were not apparent to patients, and were not influencing their care.

D2 “She’s criticising another of the nurse’s here.... And here she’s effectively telling me in front of the patient that someone else is not following the correct processes.

It's really tricky – I don't like her saying things like that in front of patients. I try and stay out of it – and be non-committal."

D2 FN: *"receptionist upset with a different dentist because he has been left to do the dirty work of calling patients with short notice cancellations..... D2 running over half an hour late, and receptionist taking it upon himself to warn patients as they arrived saying it had been due to emergency earlier in the day. "I don't want them to get narky with D2."*

D6 *"I needed D5 because he had experience of running a practice. It must be tricky for new dentists who do not have a mentor. We have practice meetings and I often come in (like today) when I don't have patients, so that I am visible and here for the girls [Practice Manager asks him to not use that term] – sorry – the staff."*

All participants demonstrated the previously explored 'ownership' in their relationships with patients, nurses and their working space, referring to them as "my patients", "my nurse" and "my surgery". Principals also tended to refer to other staff as part of "my team" or "my girls" although the latter tended not to be taken well by the staff if they heard it (see above quote). Principals also reported a sense of allegiance and connection to the practice and this ownership tended to go hand in hand in with a heightened sense of responsibility.

D3 *"I'm expanding the practice but everything's up in the air and I'll be really pleased when things are a lot more settled when I come back [from maternity leave]."*

Engaging the nurse in the design of the surgery gave D1s nurse shared ownership of the space, which enhanced their relationship as well as their efficiency in working in it and relationship toward it.

D1 “Nurse [name] and I designed our surgery together – all the nurses were involved but I said to [name] – this isn’t my bit this is nothing to do with me, so what do you need on your side?...I HATE working in this downstairs surgery – as you can see I’m looking a little bit aimless. This isn’t OUR surgery and nothing is quite right down here. It won’t be as smooth as [name] nurse has to find everything. It isn’t ours yet”

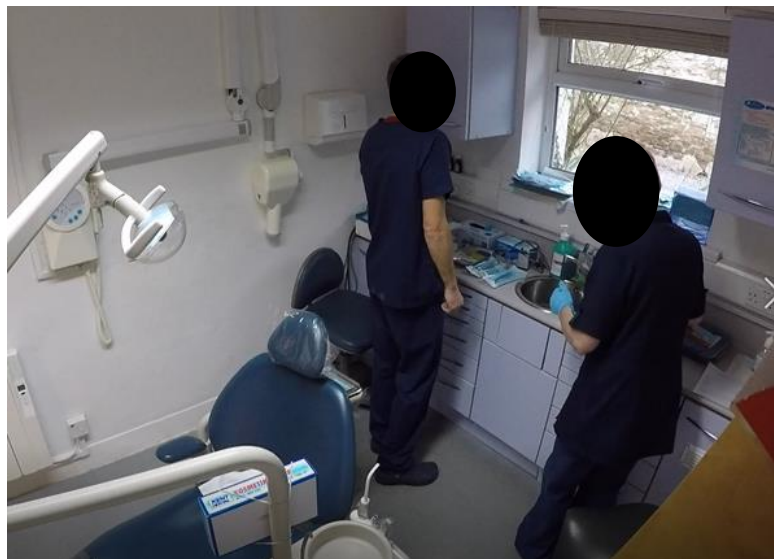


Figure 4.6 Still image that participant reported as “looking aimless” through lack of ownership of space.

4.6.3 Dentist-patient.

Within the patient care activity the dentist relationship with the patient was overwhelmingly deemed as needing to be positive. This was impacted by any personal and practice connections to the patient; as well as the patients’ wider circle of

contacts, friends and family. The impact was greatest when the dentist had a personal relationship with the patient outside of the work environment, and making time to get to know each patient was seen as important by the participants.

D1 "You can be the world's crappiest dentist and people don't know. They only how nice you are to them and how clean your ceiling is. It's the bucket of goodwill. If stuff goes wrong and y'know, we're humans and we're working on humans...shit happens. If they know you, and know about you, then they'll think, well actually he tried his best and it just didn't work."

*D5 "I've known this guy for years – he's a friend...This guy though - absolutely loaded – but he's a busy man – he only ever comes when he's in pain or needs something. This one – she is notorious in the practice – in and out like a revolving door, one of our "frequent flyers" – they have no money, but they still prioritise coming here every 6 months, so you have to give them that. She's a prickly character but she's softened and mellowed – I've known her for years now. Knowing your patient is **so** important..."*

Participants universally wanted their patients to have a positive experience of all aspects of their care across all activities. They reported that this is influenced by a myriad factors as highlighted within all the elements of each of the activity systems. Excellent clinical knowledge and skills were seen as imperative to underpin this patient centredness, as was knowing or getting to know your patient.

D2 "You have to know your stuff and know something about your patient to be able to explain why their expectations may not be realistic."

D1 *"I used to send the patients to the waiting room while the local was working – now I use the time to get to know them a bit. Knowing your patient matters."*

This focus on patient experience seemed ingrained in participants and they demonstrated anxiety if they felt that it may be perceived as negative in any way. D3 was going through the conversion of her NHS book to private, and was concerned about the reaction of patients. The longstanding NHS patients brought some stability to the business model and D3 had seen the negative impact of conversion elsewhere; they had used some of the expertise in existing patients to help devise a strategy for communicating the news. D3 *"Dentist [name] privatised his list and it went in the paper and was really badly received.... But actually all the changes so far here have been really well received and I don't really know how it's happened – it has gone crazy! I think customer care and my patients drive me more than anything."*

Participants proactively sought out ways that might enhance the patient experience. D5 *"We pay a call centre to take patients' calls out of hours or if we're busy – so that people always get a person on the other end of the phone when they call. No one wants to speak to a voicemail."*

Google and Facebook reviews were felt to be very influential for the running of a practice activity and relationships with patients and a necessary inclusion even though it added to workloads or required staff or dentists to learn new skills. This may constitute an important element of leadership training related to use of social media and marketing within professional guidelines, and legal considerations.

D6 “I am bringing things up to date – we needed to move with the times a bit. I’m in charge of the Google and Facebook stuff at the moment. Most of our patients find us through Google.”

D1, D3, D5 & D7 [principals] all kept existing reception staff on in their practices after buying them, for patient continuity. New staff were recruited to work alongside the ‘old’ staff, and changes made sensitively so that patients were minimally negatively affected. D2 suggested that such patient focus is not at the forefront of the DBC, although it is still at the forefront of the dentists and staff of the practice.

D2 “The patients round here can’t afford the prices we are expected to charge and I don’t think we offer that kind of service to charge that kind of money. I don’t care about the money because they never listen – but I do care about running late and how that impacts on me and my patients.”

Relationship with patients and the focus on patient experience also played a role in preventing negative press and complaints – both for an individual dentist and the practice. All dentists explicitly mentioned or implied a fear of being complained about.

D7 “It’s daunting taking over a list from someone who is retiring. They’re used to their ways of doing things and I might be different... like X-rays – I’ll be wanting to take them and they’ll be like ‘do I really need them?’, and then I’ll probably end up with people complaining.”

4.6.4 Dentist-professional network (external community).

Relationships with a professional network of other dentists, in and outside of the same practice, was seen to influence practice management systems, layout and design of a practice, as well as day to day issues.

D3 “The layout was inspired by [dentist name] who had a similar idea. I always ask other dentists how they do things so I can decide what might work for me. I’m not a very good business woman, so that’s what I’m trying to learn....”

D4 “Knowing D6 as I do (we actually trained together) can be weird because I know him so well. But I think we both know that work is work, and overall I think it’s probably better because we can just easily talk about things.”

The relationship of the practice to the local community it was situated in was seen to be important – especially in smaller communities. This was individually with specific patients as well as between the practice and ‘locals’ as the potential patient base.

D6 “We didn’t want the practice here, but this is where we could afford the building. We’ve done things slightly differently because of that – if everyone locally hates us that’s not good for business!”

The variety of relationships within and outside the practice were all observed and commented on as key to the dentist’s activities. Literature reports that leadership only occurs in a social situation (i.e. with other people) and that there is no leadership without followers (Carsten *et al.*, 2010; Epitropaki *et al.*, 2017; Uhl-Bien *et al.*, 2014). In all cases it was observed or discussed that the dentist needed to be respected or liked by those they were creating relationships with. When the dentists were seen to be

genuine, consistent and being themselves, the relationships tended to be more positive and lead to more effective leadership activities.

D5 PM "He introduced himself to me as the tsunami – he wasn't wrong, but he is very honest with it, and that's what's important – we trust him because of that."

D1 receptionist "D1 and his wife are way too nice to run a business – you'd think they would need to be more cut throat. They are so lovely, always – even when he gets a little bit stressed! It makes us trust him – and also we would all go the extra mile to help if he asked – which he rarely does."

D3 PM "I've known D3 since we were about 5 years old? Working for her is really great because she is just herself. Obviously she has a job to do, but she is totally genuine – there are no airs and graces – we all really respect her for that. We would all help her with anything. Because she is herself we trust her with our jobs and livelihoods. She has built a fabulous team here, simply because of who she is."

This proposition underpins the more recent developments in the leadership literature relating to reciprocal influences and the need for authentic relationships and followership ideals. The narrative review along with this finding highlights that the dentist needs to be able to maintain positive relationships among a wide variety of communities and individuals in order to demonstrate effective leadership.

Relationships will depend on various factors, and leadership activities may need to be more aligned to Transformational Leadership in times of change, and to more Authentic Leadership during ongoing day to day working.

Reviewing the relevant literature on certain models and theories of leadership may support education in this area. Additionally, support for each individual dentist to learn about, recognise their responsibilities toward, and develop their own abilities in building, developing and maintaining relationships with a wide variety of others, across a range of longstanding and temporary arrangements will be vital. This should engage students in higher order, metacognitive activities that stimulate such personal development.

4.7 Proposition 6: Capability and flexibility are required for effective leadership.

Participants demonstrated and reported various issues that impacted their activities, necessitating the need for concurrent and contemporaneous problem solving, adaptability and flexible thinking. Many have already been referred to in the previous proposition.

Participants all noted the need to be responsive to the particular situation or person and adapt behaviour and thinking accordingly. From seemingly small matters such as a patient requesting the dentist to do something that had not been planned for that session, or a patient turning up for an appointment on the wrong day; to more challenging situations such as communicating the change of practice business from NHS to private to patients, or dealing with a flood in a surgery, or managing a clinical treatment that was not going according to plan; all participants demonstrated and discussed the need to be flexible, adaptable and responsive.

D2 *“it’s very reactive, you’ve got to be able to think on your feet and be very flexible – really flexible....”*

D5 “You never know what a day has got in store for you. Even with the best laid plans – it’s always a voyage of discovery. That’s what makes it fun though (depending on your definition of fun, of course!)”

D1 “I’m sitting on the back of a bucking bronco and just trying to hold on for dear life until I get to 6 o’clock”

Capability is defined as the ability to effectively perform a role in an ever changing and complex environment through the integration of multiple competencies and utilising a range of personal qualities and attributes (Neve & Hanks, 2016). Flexibility is the extent to which behaviour varies in ways that are appropriate for the different tasks and others involved in them (Yukl & Mahsud, 2010). Yukl and Mahsud (2010) have identified various ‘streams’ for successfully undertaking flexible and adaptive leadership and many of these resonate with the requirements of dentists discovered here. Such streams³⁴ may form a useful heuristic to use as a competence style check list for a dentist working in practice, while bearing in mind that the use of tick box competencies alone do not lead to better leaders or improvements in healthcare (McKimm & Swanwick, 2011).

These abilities to adapt and respond immediately and appropriately to a given situation was highlighted across and within all three activity systems relating to patient

³⁴ Identify & understand the different contexts that require flexible & adaptive behaviour; be able to diagnose the situation and identify suitable behaviour for that context; understand how to use different behaviours skilfully; understand the effect of their behaviours on multiple objectives; understand importance of balancing competing values; increase self-awareness of traits, skills and behaviours and to develop these before they are needed; recognise their responsibility to develop others in the use of the behaviours that will underpin flexible leadership in themselves.

care, running the surgery and running the practice. It can be related to the emotional labour described in the introduction where individuals are required to manage their own emotions (emotional regulation) while concurrently portraying a specific, non-emotional reaction to their clients as part of their job (Haver *et al.*, 2013; Nicolson *et al.*, 2011; Held & Mckimm, 2011). This links to the 'acting' referred to previously as well as the need to be aware of and avoid making immediate often instinctive responses to a situation discussed in relation to personal and professional identity.

Personal issues such as pregnancy, left handedness, stress levels of dentist and nurse, rude/aggressive patients and personal well-being were seen to influence a dentist's ability to cope with a situation. Where these created trouble or disturbance the dentist had to manage the conflict, or use such capability and flexibility to find workarounds³⁵.

D7 *"I have to move round to the wrong side of the chair being left handed – it's an absolute nightmare. To be fair sometimes I just use the sink as a bin."*

³⁵ Workarounds are unintended actions undertaken by individuals within an Activity System in response to trouble or tension in order to evade or overcome the trouble. Roth, W.-M. & Lee, Y.-J. (2007) "'Vygotsky's Neglected Legacy': Cultural-Historical Activity Theory'. *Review of Educational Research*, 77 (2), pp. 186-232. P204



Figure 4.7 Left handed dentist using ‘wrong’ side of the chair to enable working.

D1 *“Associate [name] works at a rate of knots, and she does wipe everything down after the patient has left. There is no physical way her nurse would be able to do everything”*

D2 *“I tend to arrive before the nurses to get organised. I’m a bit anxious as I know she won’t be in until 2 minutes to 9, so I look ahead and get on with setting up – I can’t be doing all this at 2 minutes to 9.”*

D3 *“You can see I’m feeling really uncomfortable here and she’s [patient] starting to get a bit upset. I know that I can’t see her, but I make a pretence of checking - it gives me time to calm down so I react more appropriately – some thinking time I guess. I’ve learned that little trick over the years – if I’m starting to feel wound up, take a breath somehow. I wash my hands, or ‘check something’ on the computer.....you have to be able to think on your feet and be ready to change tack at any moment – otherwise you’ll never survive.”*

Many of the causes of the need for quick thinking and adaptability related to patient factors: the availability and flexibility of patients to attend appointments, accessibility issues, financial limitations and motivation/unexpected clinical difficulties. Often totally out of the dentist and team's control, negotiation and discussion were required to manage these areas, and often compromise and concession were necessary.

Across the three activity systems it was demonstrated that all members of the team worked together to make activities viable. Individual roles were well defined and although the dentist was seen as the head of the team during the patient care activity; nurses, practice managers and receptionists all had moments of being in control or taking the lead in other specific situations. Within the patient care activity, roles and control were very explicit where the nurse works chairside to support the dentist who is undertaking the clinical treatment, and payment and admin tend to be undertaken by the receptionist. This teamwork added to the sense of efficiency within the practice, so that the dentist could be free to see patients. However, as explained previously, clinical work is highly complex and ever changing and even with these clear roles and responsibilities the dentist was observed to need to be able to multi task and be alert to the need to be adaptable and flexible at any given time.

Although leadership roles could be more fluid in the running the surgery and practice systems, it was still deemed important that all staff were supported in their roles by those seen to be 'in charge' overall. The more familiar everyone was with the work, their roles and each other, the easier and less stressful the working day. Patients noticed and appreciated such a team approach to work.

D3 “I really try and implement a team approach which patients do pick up on - the Google reviews are not just about the dentists – they really like the team”.

Leadership education should embed opportunities for capability, flexibility and teamwork. Students need to face situations in which they can demonstrate these abilities as well as chances to debrief when things did not go well, so they can develop such strategies. Being able to integrate multiple discrete competencies, to innovate, problem solve and adapt in an unexpected situation is fundamental to effective leadership. Non-standardised education activities that support such personal development are needed even though they are complicated to deliver, measure and assess. Work Based Assessments may provide a platform on which to explore this.

4.8 Summary of findings.

The findings from the data analysis were first deconstructed using Activity Theory as the analytical tool. Three overarching activity systems with the objectives of patient care, running the surgery and running the practice were demonstrated. Individual elements within each activity system were then identified to provide a detailed and rich description of leadership in dental practice.

Data were then recontextualised through further analysis of the data in light of the combined outcome of the three individual activity systems of third generation Activity Theory: leadership within dental practice. The use of Activity Theory alongside the VRE methodology facilitated higher order and metacognitive propositions about leadership in dentistry to emerge through the multivoicedness, transformative expansive learning

opportunities and metacognitive reflexive processes embedded in them (Engestrom & Young, 2001; Iedema *et al.*, 2019; Iedema *et al.*, 2009; Ploettner & Tresseras, 2016).

Through constant comparison across cases and data types, in addition to the study of contradictions, a more conceptual and abstracted analysis thus enabled these six higher order cross cutting propositions to emerge. Three propositions related to the situation and context of the dentist; and three related to the individual performing the role of dentist.

From the situational concepts, primary care dental practice was able to be integrated into a new expansion of the leadership and organisational levels framework; dental practice was understood as a Community of Practice (Lave & Wenger, 1991); and a three element personal context of dentist as individual, as clinician and as business person were revealed. The findings indicated that the dentist's personal and professional identity; relationships within and external to their practice; and their ability to demonstrate capability and flexibility in thinking and action, all intersected to influence and create their leadership strategies.

The contrasting experiences of working in a DBC and independently owned practice were illuminated, along with an appreciation of the very different experiences of principal dentists compared to associates. The propositions also highlighted the importance of not artificially divorcing leadership training and development from the specific CoP nor the personal position of the individual. Lack of awareness of the personal position by an individual was seen to cause stress as the positions often have contradictory purposes and different decision making criteria attached to them.

Raising awareness and including the personal position or context idea into leadership development may help combat such issues.

Recognition, self-awareness, emotional intelligence and self-regulation are pre-requisites in recognising the impact of and developing positive and conscious personal and professional identity. Identities interact and influence the personal position of the dentist, as individual, clinician or business person. Stress management, and resilience in addition to the above areas provide opportunity for individuals to explore their identities and attitudes to self, others, relationships and work.

Such areas also underpin relationships, seen to be a foundation of leadership. Various models of leadership theory may be useful as guides to support individual development at various times across divergent situations with a range of other people. For example Transformational Leadership and Authentic Leadership theories for change situations and supporting ongoing working relationships respectively.

The dentist-nurse relationship was seen as a fundamental element of a dentist's leadership and leadership development programmes may need to feature support for this. Traditional and historical gender stereotypes for roles are changing, and this relationship has become more about building mutual trust than telling someone what to do.

Finally leadership education needs to embed opportunity to develop capability and flexibility across multiple situations to encourage adaptability. These skills are vital in managing the immaterial labour and articulation work required to manage workarounds in clinical practice while reducing the impact of the stress they cause.

The following chapter will discuss further the interpretation of these findings in relation to existing literature and theories, and demonstrate the final conceptual framework of dentist's leadership in primary care dental practice.

Chapter Five: Discussion

Developing the framework.

“Effective leaders are not the sum of a set of competences”

(Alban-Metcalfe & Alimo-Metcalfe, 2009 p12)

5.1 Introduction.

The previous chapters have detailed the inductively derived findings from the data analysis to identify:

- three interacting activity systems (patient care, running the surgery, running the practice)
- a thick description of leadership activities (including the deconstructed activity system elements and exploration of contradictions)
- six cross cutting overarching propositions relating to the combined outcome of the three activity systems - leadership in dental practice.

The six propositions make claims about higher order and metacognitive thinking processes and strategies (such as self-awareness and self-regulation). These are in contrast to existing behavioural and competence based leadership frameworks (Field *et al.*, 2017; GDC, 2015) enabled by the richness of the data and subsequent high level abstraction and conceptualisation this detail affords. The six propositions include the three related to the dentist’s situation, Leadership and Organisational level; Community of Practice; Personal Position or Context (as individual, as clinician and as business person) and three related to them as an individual, their Identity;

Relationships; and 'Capability and Flexibility'. Such higher order level ideas enable the embedding of complexity that existing frameworks do not incorporate currently.

The first research question of this study; "How do dentists working in primary care dental practice identify and demonstrate management and leadership skills and qualities in their day-to-day work?" was addressed in the previous chapters. This chapter now provides the foundations for consideration of the second question; "How might these skills and qualities be conceptualised into a framework to enable their use as constructs for valid and authentic teaching, learning and assessment?"

5.2 Conceptual frameworks.

A conceptual framework is an integrated way of understanding, making sense of, or operationalising a complex phenomenon through the use of symbolic statements or depictions (Green, 2014; Imenda, 2014). A conceptual framework consists of a network of interlinked concepts which are heterogeneous yet not separable, and which emphasise discrete elements within a structural whole. They enhance understanding rather than providing explanation or prediction (Jabareen, 2009); conceptual frameworks "*represent how complex things work the way they do*" (Bordage, 2009 p313).

Conceptual frameworks can be the product of inductive qualitative enquiry as in this study. Often linked to multiple bodies of (sometime interdisciplinary) knowledge, they embed interpretation (Imenda, 2014; Jabareen, 2009) and facilitate the ordering of thoughts and organisation of data (Green, 2014). They can also be used as a starting point for framing and guiding research studies and educational problems that can lead

subsequently to a variety of solutions and outcomes (Bordage, 2009; Maxwell, 2005). Their conceptual nature affords them this flexibility for modification or alignment with various contexts and towards different outputs. They can be beneficial in examining or framing specific elements of a phenomenon, problem or question in relation to the bigger whole. In this way they do not predict outcomes or causality, but maintain the complexity of reciprocal interactions, influence processes and understanding, without over-simplistic separation (Bordage, 2009; Green, 2014; Jabareen, 2009).

The difference between conceptual and theoretical frameworks and between frameworks and models is debated in the literature and terms are often used interchangeably (Green, 2014; Imenda, 2014; Maxwell, 2005). In this study the final framework is conceptual not theoretical; it seeks to provide understanding of leadership over explanation, while concurrently embedding the context of dentistry. It is therefore not espousing a new generalisable 'theory' of leadership, rather an underpinning framework to support understanding of, and teaching and learning about, leadership for dentists. While the relations between concepts are noted and reciprocal in the main, causality is not assumed, nor the nature or strength of the connections between the concepts defined (Jabareen, 2009; Maxwell, 2005).

During this chapter the conceptual framework of dentist's leadership (The Hanks Framework) will be developed. Discussion will consider ways in which this might be used to support educational programmes and curricula across a variety of undergraduate and postgraduate domains.

5.3 Stages of development of the Hanks Framework.

5.3.1 Overarching propositions as central concepts for leadership.

The starting point for this conceptual framework was the six propositions identified in the previous chapter. Each proposition concerns a key concept (as below) and it is these concepts that inform the Hanks Framework:

- Leadership and Organisational Level
- Communities of Practice
- Personal Context or Position
- Identity
- Relationships
- Capability and Flexibility

Consideration of the first three concepts (Leadership and Organisational Level; Communities of Practice; Personal Position or Context) enables insight to be gained into a dentist's leadership role as it is influenced by external factors. The three concepts relating to the individual (Identity, Relationships and 'Capability and Flexibility') internally influence the person in the leadership role. Personal development and relational insight will be necessary in order to develop, learn or understand more about them. They provide intra- and inter- personal considerations.

Collectively, these six concepts are linked and combined to form the framework.

5.3.2 Linking the concepts.

Individual concepts overlap and influence one another so that they cannot be understood independently of the others. They are therefore depicted as in figure 5.1

with the dashed line delineating them as internal to the dentist rather than external; but recognising that they are not detached from the influence of external elements of the situation.

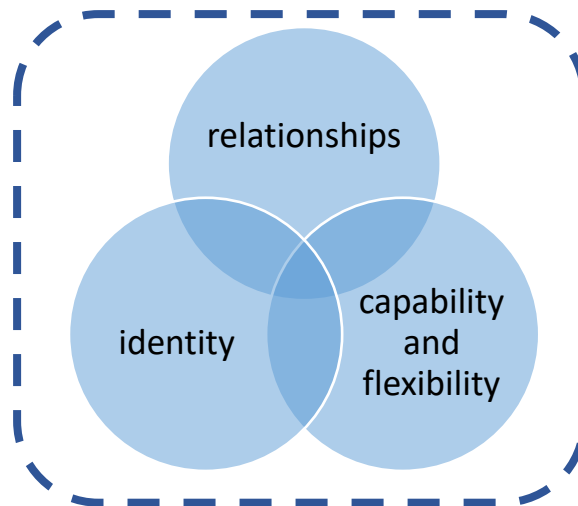


Figure 5.1 The interrelated personal concepts of a dentist's leadership.

A dentist's leadership was impacted by the situational concept of the specific practice context (Community of Practice (CoP)) in which they were working. Within this CoP, the specific personal position or context through which the dentist was viewing and reacting to the situation (as individual, as clinician or as business person) further impacted these internal factors. Individual concepts and personal position could therefore not be explored independently from the overarching consideration of the specific Community of Practice.

These five concepts all had reciprocal influence, overlapped and were embedded within one another. They could not be artificially separated and are therefore depicted as in figure 5.2. Their reciprocity and interaction embed the view of leadership as being a socially constructed reciprocal influence process that was identified and supported in the literature review.

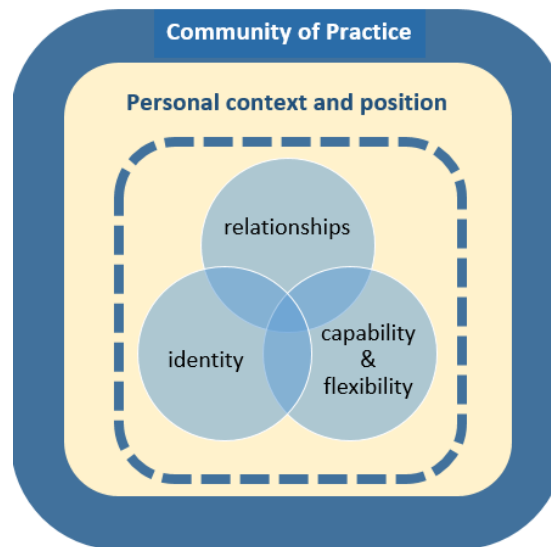


Figure 5.2 The relationships and influences of a dentist’s leadership as related to situational and individual concepts.

The sixth proposition about Organisational and Leadership Levels became the final concept in the framework. Although it was not noted to influence explicitly the specific activities of the dentist, it was found to have significant influence implicitly over the entire context and all the other concepts. This tacit influence is therefore noted to impact each of the others from the outside; being detached from the other concepts but linked by a uni-directional arrow.

5.3.3 Completing the conceptual framework.

The final conceptual framework depicting dentist’s leadership can therefore be depicted as in figure 5.3. It provides enhanced understanding of the phenomenon of leadership by integrating the concepts, their influences on each other and connections between them. A significant finding derived from this study is that leadership cannot be understood fully by only focusing on discrete parts of the framework. This has significant educational implications for dentists’ leadership training, planning and delivery.

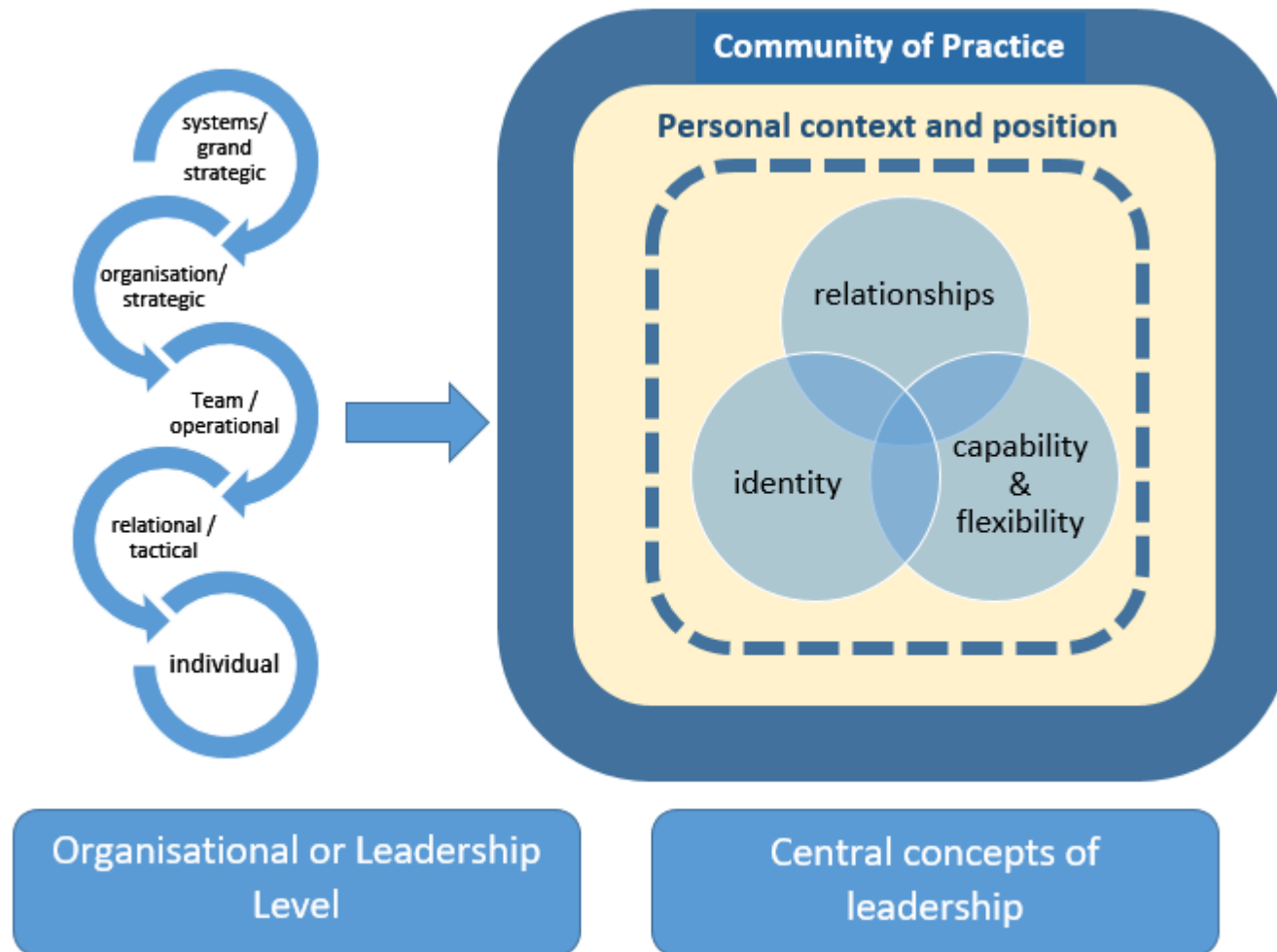


Figure 5.3 The Hanks Framework of dentists' leadership.

5.4 Linking the framework to leadership literature.

The literature review (Chapter One) concluded that there was no single definition, model, concept nor aim of leadership that was appropriate to underpin every situation or eventuality. Many of the clinically focused papers of the third stage of the review (related most specifically to patient care and dentistry) were relying on outdated theories and approaches. The review highlighted the need for empirical, context sensitive data at the operational (patient care) level. This framework is grounded in such data and due to its conceptual nature can be seen as overarching and adding context to much of the existing work.

The framework has been co-constructed with data from dentists in a ‘bottom up’ rather than ‘top down’ approach (Iedema, 2006), so giving a voice to the practitioners and clinicians who inhabit Iedema’s ‘zone of maximum complexity’ (Iedema *et al.*, 2019). The research has enabled the framework to be used to operationalise leadership in a way that is currently missing in the literature, documentation and guidance available for education and training.

5.4.1 Definitions, models, theories, concepts and aims of leadership.

While the literature did not show any consensus with regards to a definition of leadership, including clinical leadership, three definitions were found to recur. These were: a social or influence process occurring in a group, an ability, art or skill (competency based), and a regulatory, problem solving process. Each of these may be related to elements of the framework, while accepting that none offer a complete picture.

There was one definition of clinical leadership in dental practice which focused on *“the skills required to provide effective patient care within a successful business”*

(Moore *et al.*, 2015 p255). The findings of this study and the resulting framework challenge this definition. Clinical leadership in dental practice has been demonstrated to be far more than a set of skills. Moore *et al.*'s (2015) definition suggests that leadership is competency based, rather than being the more complex socially constructed idea that is commonly accepted. This framework highlights clearly the significance of context, so challenging this competency based approach, but still allowing this definition to relate to smaller elements within it.

The framework embeds all three of Hartley's (2008) person, position and process influence typology, further supporting the contemporaneous view of leadership as a dynamic multifaceted process with numerous interacting areas. The host of factors noted in the literature as being influential (including the individual; their abilities and behaviours; their relationships; the team; the task; and the environment) can all be considered within one or more of the central concepts of the framework. They are embedded explicitly or implicitly, while not limiting the overall understanding of the framework.

The higher order nature of the central concepts in this framework is another response to the critique that merely demonstrating a set of competencies is insufficient for successful leadership. However, use of the framework offers an opportunity to embed or map against these existing competency frameworks (including NHS, 2016, GDC, 2015 and FMLM, 2018 for example), so addressing the issue that most of this policy context documentation is mapped solely to medical documents. Mapping can clarify context relevance for dentistry or facilitate refinement of existing outcomes to support and confirm their best use in education and training

across or within specific healthcare contexts. Examples are provided later in this chapter.

Use of the framework provides capacity to incorporate and link to multiple models and theories of leadership depending on the individual person or specific context. The reciprocal influence nature of the model embeds personal identity as well as individual and group behaviour. It therefore aligns with the more up-to-date post heroic theories such as relational, engaging and authentic leadership, all of which themselves embed and incorporate emotional intelligence as a core element. The reciprocal influences of the CoP, a dentist's personal and professional identity, their personal position or context (as individual, clinician or business person) as well as the importance of relationships, integrates and embeds tacitly the fundamental element of followership or 'being led' (by the dentist, or of the dentist in relation to others in the CoP).

The final framework can also incorporate current policy context. By reinforcing the currently accepted and complex ideas of leadership with its multiple influences and considerations it also addresses the issue of the academic literature still displaying reliance on oversimplified or outdated ideas. Additionally use of the framework as a tool for reflection enables the aim of leadership to be defined relative to the specific context of the situation.

The framework's embedded complexity clearly rejects the oversimplified binary concepts of leadership noted in the literature review, including leader or leadership; how to lead or how not to lead; management or leadership. By embedding complexity, multiple concepts and reciprocal influences, it strengthens further the current thinking

of leadership as a dynamic socially constructed process containing multifaceted reciprocal influences and moderators.

The nature of the framework enables the complexity of leadership to be maintained and appreciated, while facilitating it to be viewed in a simplified form. It enables the move beyond individual definition, theory, model, concept or aim of leadership. All relevant thinking can be encapsulated by the framework, yet does not limit it. In this way the Hanks Framework is more than a newly proposed model or theory of leadership. It enables the complexity of lived ideology to be embraced and taken into consideration, rather than attempting to limit by the artificial constraints of intellectual ideology or over simplified separation of individual concepts.

5.4.2 Levels of leadership.

The literature review in Chapter One also included consideration of the influence of leadership levels on crossing boundaries, underpinning decision making responsibilities, aims and outcomes, and contextualising situations.

Within the framework, the leadership level the dentist is working at is seen to influence and indeed 'set the scene' for every other part of the structure. It situates and provides the context for all aspects of the situation to facilitate the crossing of boundaries between people, processes, contexts and aims of leadership. It embeds the distinctions between roles, hierarchies and arbitrary divisions between leadership, management and administration. It can also be used to highlight where personal position or identity may be incongruous when compared to the leadership level. This in turn may support conflict resolution for or between individuals, and enhance working relationships.

The noting of leadership level may also support the understanding of associate or practice issues within a DBC. For example, an associate may be working at an individual level that is not recognised within the DBC structure, and trying to create impact or make a decision undertaken customarily at an organisational level. Noting this, could explain multiple issues for both sides, and provide ways to manage and/or resolve the problem.

According to the leadership and dental practice figure (Figure 4.3 p181) dentists in practice do not work at the grand strategic or political level. While principals work across individual, dyadic, operational and strategic (organisational) levels; associates do not tend to venture into strategic level work. Inclusion of this grand strategic level however, may help any dentist to make sense of the impact of decisions that are made at this level when they are to be operationalised within a practice. For example, NHS commissioning structures (grand strategic level) will have a direct impact on a practice income (strategic level) and nationally agreed policy may have a bearing across many levels. This may relate to how a practice implements such policy, actual patient facing behaviours or ways of working in the surgery and/or what a dentist needs to know in terms of theoretical or intellectual knowledge. The difference between principals and associates is another example relating to organisational or leadership levels. Principals are more engaged at organisational or strategic levels, and associates actively or passively disengaged. Education or development activities may note the level ascribed to a situation, which may illuminate the difference for and between principal and associates. Enabling reflection on such issues may support clarification and highlight development and further training opportunities.

Context is vital to understand any leadership situation and the inclusion of the leadership levels in the framework supports clarification and definition of that context, thereby influencing all the other concepts.

5.4.3 Knowledge of the leadership literature.

It is important to note that a knowledge of the leadership literature, whether it be definitions, concepts, theories, models or the current policy context, is not essential for using the framework. The framework is a tool for education, training and development purposes to be used independently of the literature. Neither dentists nor educators need an in depth intellectual or theoretical knowledge or understanding of the area to use the framework effectively. Through using it, however, they may identify specific areas in need of development that may benefit from exploration and critique of the literature. Some dentists may be excellent at operationalising leadership without understanding how it relates to theories or literature, but as suggested may benefit further from enhancing such knowledge. Educators may wish to integrate some leadership theory into training to underpin and support use of the framework.

The ability to operationalise and explore leadership in dental practice using the framework without needing to rely on a theoretical underpinning is one of the major advantages of the Hanks Framework.

5.5 Challenging the leadership literature.

The framework's structure, derived from the data, has been shown already to challenge explicitly the one definition of clinical leadership related to dental practice identified in the literature review (*"the skills required to provide effective patient care within a successful business"* (Moore *et al.*, 2015 p255)). The framework has been

created in a way that also embeds implicit challenges to outdated ideas found in the literature. Through its acceptance and embedding of complexity and the alignment with the socially constructed nature of leadership, it is challenging the common practice of creating artificial boundaries within which to frame leadership. While it adds to and underpins existing policy documents it challenges the over-simplified, narrow definitions and aims of leadership that they often contain. For example the GDC (2015) definition of leadership; *“the skills and knowledge required to work effectively as a dental team, manage their own time and resources and contribute to professional practices”* and the ADEE European competencies (Field *et al.*, 2017) where leadership is aligned exclusively to safe and effective clinical practice as it occurs only within that domain. Furthermore while the policy and healthcare literature (including the NHS Improvement 2016 leadership framework and FMLM 2018 indicative leadership curriculum) continue to espouse competency frameworks as the complete answer to the leadership question, this framework acknowledges their use potentially as a part of the process, but challenges the assumption that they are sufficient in isolation.

‘Leadership’ as an entity has been accepted in this study for pragmatic reasons, because it is included in policy and regulatory documents and needs, therefore, to be explored to provide an evidence base for its education and development. The findings from this study, embedded in the framework, suggest that ‘leadership’ forms only part of the work of being a dentist, and as with the artificial boundaries created through definitions or individual theories, leadership cannot be viewed independently of the holistic activity of being a dentist without creating more. Leadership in dental practice may not be the same as leadership as it relates to the board of a global organisation

therefore, or leadership in a national department store. The idea that stand-alone leadership training activities and education strategies divorced from the context in which leadership is enacted, are sufficient and a complete answer to the call for leadership training, is consequently wholeheartedly challenged. While these stand-alone opportunities may provide some supportive conceptual ideas, learning and support as part of leadership development, this is not enough on its own.

Finally, use of the framework permits the model of the DBC dental practice to be challenged. The inclusion of the DBC board at organisational level and subsequent anonymising of the individual, effectively seeks to remove the three individual central concepts from the framework. This may be a useful way in which to explore specific issues and problems from both sides (dentist and company). Use of the framework would suggest that the inclusion of the individual dentist concepts is a prerequisite to be able to meet the combined leadership activity, encompassing the three discrete aims of patient care, running the surgery and running the practice. In essence, removing the individual concepts will impact ultimately patient care when viewed through the context of the framework. This may not only apply solely to DBCs, but also in other circumstances in which additional layers of governance at organisational level may be included, for example, the NHS salaried services, and social enterprise clinical providers. Further work may support both individual dentists and the organisations in which they work, to overcome this potential fundamental issue.

5.6 Linking the framework to education.

When taking part in the VRE session, D5, an experienced principal dentist, stated *“You don’t learn that in a day. This is 30 years of experience.”* This suggests that

leadership activities cannot be easily learned or taught. If this is true, then new graduate dentists may not be ready to act in leadership roles when they qualify. However, the leadership concepts derived from this study demonstrate that, in fact, they will need to be able to do just that. They need to be 'prepared for practice' and have 'capability' to successfully perform across a variety of professional contexts as their situation dictates (Eva *et al.*, 2016; Hanks *et al.*, 2018; Hanks & Neve, 2016; Hawkins *et al.*, 2015; Illing *et al.*, 2013; Monrouxe *et al.*, 2014; Neve & Hanks, 2016; Pusic *et al.*, 2018; Wheelahan, 2007). The more that they can be prepared to take on leadership roles from the start of their careers, the more successful they are likely to be as dentists.

The six overarching leadership concepts in the framework are all in themselves complex metacognitive processes and ideas. They contain elements of cognitive, theoretical and intellectual knowledge related to a dentist's work but are related additionally to multiple areas of personal development, professionalism, professional identity formation, capability, self-regulation and self-organisation. These areas require higher order skills and abilities to enable effective performance (Barnhoorn *et al.*, 2018; Birden *et al.*, 2014; Cruess *et al.*, 2015; Cruess *et al.*, 2016; Mann *et al.*, 2009; Mennin, 2010; Passi *et al.*, 2010; Pusic *et al.*, 2018; Wald, 2015; Watling *et al.*, 2013).

Educating for complex domains such as these requires equally complex, non-linear pedagogies that rely on active participation by the learner to enhance self and personal development (Anderson *et al.*, 2001; Hodges *et al.*, 2011; Passi *et al.*, 2010). Learners need the ability to suspend naïve beliefs about objective 'facts' in order to critique, reflect and co-construct understanding and learning with others (Hodges *et*

al., 2011). Humanistic considerations including relationship development between teacher and student, student and peers, are important along with the opportunity for repetitive practice and socialisation and meaningful reflection over a period of time (Hodges *et al.*, 2011; Mann *et al.*, 2009; Passi *et al.*, 2010; Wald, 2015).

Feedback is a fundamental element of such complex development, and needs to be credible and constructive with opportunity for a rich narrative (Hodges *et al.*, 2011; Nicol & Macfarlane-Dick, 2006; Sadler, 1989). Learners need to be able to build trusting relationships with those who give feedback, and with others who can guide and facilitate their reflective practice and reflection (Ben-Yehuda, 2015; Ray, 2017; Sadler, 1989; Yorke, 2003). Learners also need access to individuals who can act as expert role models and/or mentors, who have the ability to guide learners, through explaining and discussing how and why they are able to do what they do and encourage the student to conceptualise excellence for themselves (Barnhoorn *et al.*, 2018; Cruess *et al.*, 2015; Cruess *et al.*, 2016; Eva *et al.*, 2016; Mennin, 2010; Passi *et al.*, 2010; Pusic *et al.*, 2018; Wald *et al.*, 2012; Watling *et al.*, 2013; Wheelahan, 2007).

Just as the concepts of leadership cannot be assessed by observation or knowledge alone, their education and development will not be supported through simple, linear, low level learning outcomes such as 'describe', 'list' or 'state'. When creating learning outcomes for such areas, higher level outcomes in cognitive and affective domains will be required, such as 'synthesise', 'critique', 'resolve', 'value', 'judge' and 'debate' (Anderson *et al.*, 2001; Krathwohl, 2002; McKimm & Swanick, 2009).

Assessment strategies in turn will entail fewer single point in time pass/fail dichotomies, with more emphasis placed on combinations of outcomes from various assessment types that drive learning through doing (assessment for learning) (Swaffield, 2011). Assessment strategies will also include multiple formative assessments that provide feedback and feedforward across time and context; fewer standardised simulated or theoretical assessments; and more assessments containing variable outcomes with uncertainty or complexity for the student and the potential for no single correct answer. Outcomes from these various assessments should be considered together to reach any final decision about overall student progression or 'success' (Eva *et al.*, 2016; Schuwirth & Van der Vleuten, 2011; Van der Vleuten *et al.*, 2010). Such constructive alignment of learning outcomes with the constructs being evaluated, combined with programmatic assessment considerations (Schuwirth & Van der Vleuten, 2011; Van der Vleuten *et al.*, 2010) will link the framework to leadership and to the education of and for it.

5.6.1 Learning and leading with emotional intelligence.

One of the recurring elements discovered in this study is emotional intelligence (EI). EI has been the subject of critique in medical education (Lewis *et al.*, 2005) suggesting that, like leadership and professionalism, educating for it is challenging when there is no single accepted definition, overarching model or theory (Alban-Metcalfe & Alimo-Metcalfe, 2009; Alimo-Metcalfe & Alban-Metcalfe, 2008; Hodges *et al.*, 2011; McKimm & O' Sullivan, 2016; McKimm & Swanwick, 2014; Passi *et al.*, 2010). Nonetheless, the notion of EI as reported by Boyatzis (2008) and Goleman (1998) underpins and aligns with many of the higher order outcomes and activities of

leadership in this study. Many similar aspects of EI such as self-awareness, perception and self-regulation (emotional labour) overlap with the educational considerations mentioned above, and can be seen as a supporting educational foundation to many of the pedagogic approaches that may be appropriate in supporting the framework's use in leadership education (Held & McKimm, 2011).

Learning in the above domains, as with leadership itself, involves cognitive, affective, interpersonal, social and institutional constructive and influencing processes (Hodges *et al.*, 2011; Mann *et al.*, 2009; Passi *et al.*, 2010). It is likely, therefore, that as learning progresses and leadership develops, these will be mutually beneficial to one another so that there will be an exponential growth in both. That is to say that authentic learning and leadership will exert reciprocal influence on, and improve one another.

With these considerations in mind, the next section will explore and describe some ideas and examples to demonstrate use of the framework.

5.7 Using the framework to support education and training.

The Hanks Framework provides a way to support the understanding of leadership for dentists. It does not seek to determine or prescribe outcomes; nor describe, explain or advocate processes. It is a tool that may assist educators to develop and plan curricula as they seek to understand and educate for leadership within their own specific contexts.

Leadership, as espoused in this study, forms an integrated element of the work of 'being a dentist'. Any effort to split into domains or discrete sections will create

artificial boundaries, and in reality the behaviours assigned as leadership will cross into other areas, so boundaries will become blurred and overlap. For example, the domains of learning in the GDC Preparing for Practice (2015) document which outline the learning outcomes for undergraduate training programmes, are clinical, professionalism, communication and 'management and leadership'. It is evident that much that is contained within this leadership framework could apply to any of the other domains. This issue of blurred boundaries can be overcome and managed by ensuring that learning in each domain is integrated into the whole of an undergraduate curriculum. For postgraduate education, it may be stated explicitly, that learning for and about leadership is likely to impact and improve additional areas of practice.

In the same way as with the GDC educational domains, the interactions and influences of the leadership concepts within the conceptual framework cannot be disconnected. The complexity and intricacy of these activities is hard to communicate without "*mistaking simplified writing for oversimplification of experiences*" (Sandelowski & Leeman, 2012 p1405). This complexity has been alleviated throughout this thesis by the use of sections and subheadings to prescribe a structure, coherence and rhythm in order that "*important findings are not lost in clichéd, overwrought or disorderly prose*" (Sandelowski, 1998 p382). Imparting such complex multifaceted experiences and activities is a common issue in the writing up of the complex findings of qualitative research (Drisko, 2005; Sandelowski & Leeman, 2012). In the same way that boundaries between discrete areas of curricula may be blurred; boundaries between the concepts within the framework may demonstrate overlap and/or multiple relevance. In the examples below, the reader should notice some overlap

across the individual sections and between ideas. In this way the simplified writing does not detract from the multiplicity and complexity of the ideas it is seeking to describe.

The framework depicts leadership concepts that can be included in teaching, learning and assessment in undergraduate through postgraduate and ongoing continuing professional development (CPD) for all dentists. Because the concepts have been explored deeply and understood, they can be used as meaningful assessment constructs. Learning outcomes can therefore be developed at multiple levels and mapped to various taxonomies of learning (such as Bloom's), competence or capability frameworks as required (Anderson *et al.*, 2001; Hanks & Neve, 2016; Krathwohl, 2002; Norcini & McKinley, 2007). Learning outcomes and assessment criteria can then be devised using multiple and meta-levels of cognitive, affective and practical attainment, from knowledge acquisition to hands-on application and from demonstration to critical analysis, conceptual theoretical argument, debate and discussion.

Existing leadership education interventions may be mapped to the framework's underlying concepts, gaps identified in assessment strategies and programmes; and previously disconnected sessions and assessments linked. The framework might also provide a conduit for integrating competencies or discrete curriculum elements into the whole, to provide meaning and context and thus enhance authenticity for learners. For example teaching on NHS dental payment systems, complaints, material science, communication and interpersonal skills, personal and professional identity formation, psychology and behavioural science may now be linked to leadership via elements of the framework. Such learning, which undergraduate students may not see as relevant

or useful may have more direct significance to them, when viewed in light of the conceptual framework.

In addition to its use as a mapping tool and to develop learning outcomes, the framework may be used as an overarching or strategic guide for development of curricula or training pathways and programmes related to leadership. It may support programmatic assessment strategies (Schuwirth & Van der Vleuten, 2011; Schuwirth & Van Der Vleuten, 2012) at multiple levels and across various assessments, to enhance their validity and enable spiralling (Harden, 1999) for learner development across years or activities. It may be given to students to use as a guide for their own reflection and development in individual, one to one, or small group scenarios. For example, using the premise of VRE or de-brief strategies, students may be asked to reflect on recordings of themselves to highlight their own experiences of leadership across the concepts. The framework may itself be utilised as an analytical tool when watching the videos, to enhance reflection as well as reflexivity (Iedema, 2011). Example videos and resources might be created to support generic learning sessions to highlight where various elements of leadership are demonstrated – again for individual student reflection or group or team discussion and education. The study has demonstrated clearly the use of the VRE to identify the previously hidden areas of work for the participants and therefore its potential efficacy in a similar manner for training and development.

The framework may also be a useful tool in postgraduate CPD for specific one to one personal development or coaching for individual dentists; for supporting strategies to overcome specific issues identified within a practice; or for generic leadership

CPD/training across the team. For postgraduate study there is additional opportunity to develop programmes and activities that promote higher levels of criticality in line with level 7 learning (and above³⁶). Critiques of concepts and 'accepted' intellectual knowledge about leadership may support individual dentists' self-development and ongoing formal education, while concurrently providing enhanced appraisal and understanding of leadership, its elements, concepts and this model, to enhance the professional community's knowledge and skills.

Finally, at all educational levels, this framework may provide a metacognitive and higher order thinking foundation to underpin current leadership models, theories and curricula. Existing competency based leadership education outcomes (including the GDC preparing for practice and COPDEND UK Dental Core Training Curriculum) may be mapped to this framework to aid conceptualisation and refinement of existing competencies, and enhance curriculum and training delivery. See section 5.7.1a below for a specific example of this. Such a foundation may enhance the relevance of these existing models and support educators to ensure that the outcomes are fully realised. For the GDC and other regulatory bodies, this framework may therefore provide a useful method for developing remediation or training activities for underperforming dentists.

³⁶ <https://www.qaa.ac.uk/quality-code/qualifications-and-credit-frameworks> *Higher Education Credit Framework For England* p14

5.7.1 Linking the Hanks Framework and its leadership concepts to learning.

5.7.1a Example 1: Mapping existing learning outcomes to the framework.

Using one example from the GDC Preparing for Practice Learning Outcomes for the Dental Team (GDC, 2015), a description of how the framework may be used to underpin and meet these regulatory and advisory educational criteria, while supporting development and situating learning will be provided.

Outcome 12.5 in the Management & Leadership domain of the GDC 'Preparing for Practice', and quoted in the introduction, states that registrants will: "*recognise and comply with national and local clinical governance and health and safety requirements*" (GDC, 2015 p26).

As a stand-alone outcome this is at operational (organisational) level and at the lower end of Bloom's cognitive levels (remember/recognise and do). However, considering this outcome in context of the whole framework can enhance understanding and deepen relevance. Firstly through noting the organisational leadership level that the dentist is acting at will influence the activities associated with the outcome. The dentist may be complying with requirements as a clinician (aligning to individual, dyadic and/or team levels) or a practice owner or principal (strategic level) or on more than one level at once. This level will influence initially the impact of the dentist complying with the requirements within the specific Community of Practice and then further their impact other individuals' workloads or via relationships with the person responsible for such ensuring compliance.

It may be that there will be a negative reaction by the dentist to the person responsible for such compliance at the strategic practice level (e.g. principal or practice manager) and they may find relationships altered, or perhaps they may now have to require others to do additional work in order to comply with the requirements within the surgery.

Reaction to having to follow requirements and impact relationships with others involved will be influenced by personal and professional identities and the response to being potentially in a followership role. The personal context of the dentist (as individual, clinician or business person) will influence their responses towards and within the CoP (perhaps taking the issues of positional legitimacy and psychological ownership, as well as their role within and attitude toward the CoP, into account). Their personal context or position will influence in addition their attitude toward the need for compliance in the first place; as a waste of time, as a set of rules to be followed for the sake of it, i.e. accountability over ownership, as a legal requirement to avoid litigation, or as an expensive exercise on the practice and its staff.

If the theoretical knowledge of regulations and requirements needs updating, both personal position and identity will influence the individual's reaction to that. There may be a personal response as individual to going on a course or using 'free' time to do work, and keep up to date and perhaps being more or less willing or able to do that. As a clinician, however, the individual will need to accept and understand the prerequisite to be up to date to ensure patient safety and be able to support the nurse in their duties; ensure the essential capability and flexibility to enable sustained or changed practice; and to notice and find solutions if things go wrong. Governance

issues such as these are likely to affect others and perhaps create tensions within or for the CoP. Understanding how that might occur and how individuals within that might feel and respond (EI) will influence and impact the building of trusting relationships. Understanding how requirements, and dentists and others' reaction to them, may influence relationships, especially with patients, who generally do not need to understand the legislation and rules (but who might), and who may find some things pointless or unnecessary, is fundamental.

Mapping the specific learning outcome to the framework highlights its relevance to the bigger picture and the operational cognitive level of learning can then be taken beyond 'recognise and comply' towards 'discussion, debate and analyse'. Mapping may be to all or just some elements of the framework, but the activities of recognising and complying, when viewed through the leadership framework lens, are seen more evidently as relevant to those activities.

Once the outcome is mapped, curricula or teaching sessions can be developed that directly address the outcome and which are situated contextually within the realm of a dentist's leadership. For example, a session on personal reaction to change, or response to being a 'follower' when the leader is not necessarily a dentist. The ownership of learning and development, or whether the individual assumes a lack of positional legitimacy of the practice manager trying to embed such governance, can be situated within the framework and made relevant to the learner. These issues may become apparent for example, where a student does not respond well to a tutor who is not a dentist, and this can also be linked to the framework and the issue legitimised, contextualised and followed up. Through mapping to the framework, students and

faculty can more clearly see the relevance and importance of such areas and enhance connections.

5.7.1b Example 2: Using concepts to develop education activities.

Viewed in isolation the tripartite model of dentist as individual; dentist as clinician; dentist as business person may be used as a discrete curriculum element for teaching, learning and assessment. Some of the challenges faced when these three positions may conflict have been discussed and include stress caused by thinking about patients paying for their treatment and patients missing appointments or cancelling. This may seem relevant to learners and faculty, but alone, this tripartite concept does not make sense of leadership activities of dentists. When viewed within the framework, however, the concept and its associated teaching and learning activities can be situated and contextualised, so that learners and educators find it more meaningful and authentic.

- *Dentist as individual.*

It is recognised that an individual will bring their personal preferences, assumptions, biases and personality into their leadership activities. It has also been noted that Authentic Leadership may lend itself closely to leadership in dental practice. These elements will require an individual to not only know about and understand the theoretical basis of these areas, but also possess and demonstrate an advanced level of self-awareness, self-regulation and self-management (emotional intelligence) to demonstrate and practise them. As an individual they will need to be able to exhibit the formation, development and maintenance of effective relationships; how to overcome relationship issues; and how to rebuild or manage more challenging

interactions. This will also mean being able to compromise and show 'Capability and Flexibility' for the good of their leadership effectiveness, while being consciously aware of their own limitations and boundaries. They must be aware of the choices available when these personal boundaries are breached, and the impact of straying outside them, including experiencing negative emotional reactions leading to stress. In addition, they will need to have an appropriate cognitive and intellectual ability in order to be able to manage the technical and cognitive load that being a dentist will place on them.

One of the major factors that might challenge an individual is the receipt of critical, unfavourable, and occasionally hostile communication or feedback, which may be from a patient, colleague or peer. Being aware of one's personal reaction, and having both the cognitive and affective skills to manage such a situation, underpins an appropriate response. This may be one area in which individuals require explicit input from others (perhaps within a one to one coaching arrangement) to help recognise issues and develop solutions. Individuals will need to understand the role and remit of professional identity formation so that they are empowered to do this effectively as they become a clinician.

Personal development, emotional intelligence, authentic leadership and the theory and practice of effective relationships will therefore be among the intellectual areas necessary for education of dentist as individual. These will inevitably form an early part of the learning process perhaps even prior to beginning any specific clinically related training. They will be crucial to revisit throughout a career as experience, age and personality impact: such impact and consequent change should be recognised and

understood consciously to enable the individual to continue to function effectively in this domain. Consideration of support in this individual leadership domain should be continuous throughout a dentist's career.

- *Dentist as clinician.*

Pertinent to all dentists is the leadership role as clinician when working in a dental surgery. Building on the individual requirements, leadership at this position moves from a chiefly self-emphasis to a focus on others. While the dentist needs to demonstrate an appropriate level of technical, intellectual and theoretical knowledge in order to do the job, the paramount remit of this domain is how to influence and respond to others and the situation. Others will be patients, colleagues, nursing staff, receptionists and all supplementary members of the team – transitory or stable. Leadership in this domain requires the ability to give and receive feedback appropriately; being mindful of the, often unconscious, reaction it may create in the other. Here social intelligence as defined by Boyzatis³⁷ may be relevant, along with superior listening, communication and responding skills.

Further personal work will be necessary in this domain in order that the dentist understands how they and their reactions and emotions affect others, and how to manage that appropriately and effectively. Building on the individual level of understanding about professional identity formation, this domain sees the need for the dentist to develop their own professional identity, rather than merely have knowledge about it.

³⁷ Social Intelligence: the ability to recognise, understand and use emotional intelligence about others that leads to or causes effective or superior performance

Dentists need to be able to undertake clinical activities while also attending to other tasks and activities, as well as being able to adapt in appropriate ways in accordance with the unfolding situation and how that might be impacted by the 'other'. They need to employ quick and flexible thinking alongside adaptive responsive behaviour, in order to compromise and manage each individual situation and demonstrate capability. They need exceptional communication skills implicitly embedding the aforementioned social intelligence. If both areas are developed, they will no doubt have a synergistic effect on the dentist's learning and development, as well as their leadership.

This domain includes the areas of clinical governance and legal, regulatory processes required to undertake appropriately and lawfully the role of a clinician. This work may start as knowledge acquisition, but needs also applying effectively in the clinical situation. As explained above in example 5.7.1, this is also related to organisational leadership levels and the Community of Practice within which it is being applied.

- *Dentist as business person.*

This business person concept can be divided into 2 areas: one for all dentists and one relating to principal dentists as employers and practice owners.

All dentists will need to understand how their work relates to their income and personal finances, including their own personal reactions and thoughts about that. They will need to demonstrate skills in managing that relationship and developing a network of people and business support for those processes, such as an accountant. They will also need to be consciously aware of the challenges of leadership in this

domain when the philosophy of patient care (dentist as clinician) may conflict with a business mind-set of financial gain or business development. Personal and professional reactions to money and finance will influence these challenges outlined in the findings. Within this domain for all dentists is the metacognition of how the legal, regulatory and governance processes impact and are managed in the surgery and the practice, together with the clinician's role in relation to these. This extends to their responsibility and reaction to staff development and training and their own CPD. All dentists will need to have an understanding of the varying organisational levels at which they and others work; the costs associated with the clinical care they provide; and the levels of psychological ownership or accountability they demonstrate or feel.

Principal Dentists have an extended remit in the business person domain. This includes knowledge and application relating to multiple areas of business and employment law and regulation. Financial, material, building, HR and professional networks all need to be considered, and the principal dentist needs to have a working knowledge of all of these, as well as a network of advisors to liaise with to operationalise them.

In addition to the pure business side of things, principal dentists need to develop team leadership skills relating to managing larger groups of 'others' – heterogeneous and homogenous, such as groups of dental nurses or a mixed team of dentists, therapists, hygienists, technicians etc., as well as individuals. Emotional intelligence and authentic relationships are highlighted again, in addition to the explicit need to be seen as constantly available to the practice, and how to manage that effectively in line with personal priorities and requirements. Continued personal development will be

essential to enable recognition of the conflict that may occur between the three contexts of individual, clinician and business person, with each of their own, potentially mutually exclusive, ideologies.

This example demonstrates how learning sessions based on personal development and individual personality and theoretical knowledge of professional identity formation which may not appear relevant to a dental student (or experienced dentist), can be made relevant when viewed within the framework of leadership. It also demonstrates how reflective practice (often seen as a tick box regulatory compliance issue) can be enhanced to facilitate engagement and meaningful activity to support individual, team and the profession's development. The clear interrelation between areas of the framework also reinforces the message that it should not be used in an oversimplified manner to provide discrete and mutually exclusive learning opportunities within one single domain as encompassing the entirety of leadership for dentists.

5.7.1c Example 3: linking concepts to create learning outcomes.

The area of identity related to gender will be used to underpin this example of how to use the framework to create learning outcomes, teaching and learning sessions or training and development opportunities.

It has been proposed that there is little difference in leadership between men and women, and that it is "*sex role stereotypes that matter more than gender per se*" (Jonsen *et al.*, 2010 p155). Historically, men have been the dominant discourse in leadership in dentistry, as in medicine and leadership in general (Kyriakidou, 2011). Although according to the GDC register there are similar numbers of female and male

dentists (20,691 male dentists registered and 20,406 female³⁸) this finding is consistent with literature that reports “*even where females account for 50% of first year students....professional hierarchies... continue as bastions of male power*” (Gill et al., 2008 p225). In this study the main gender issues seemed to be reported from both a stereotype perspective and an actual gender difference, both of which impacted the operationalising of leadership related to individual dentist identity (personal and professional), conflict between personal contexts as individual and business person, and relationships. D3 reported her reluctance to take maternity leave and her keenness to return to the practice quickly, mirroring findings from literature on gender and leadership that “*being assertive, forsaking a family life and taking risks are seen by some of the women.... as the only option in order to get ahead. Although forsaking family life is a price that men would not have to pay*” (Kyriakidou, 2011 p5). In the engineering literature it has been reported that females often fall into one of two stereotypical characters; “*one of the boys*” or “*pretty woman*” (Gill et al., 2008 p233), to help them fit in with and develop relationships with male colleagues. This highlights what the leadership literature reports as the “*cultural and economic legacies that centuries of discrimination have left for historically disadvantaged groups*” (Jonsen et al., 2010 p561).

Healthcare literature links females in leadership roles to other disadvantaged groups such as “*immigrants and millennials (Generation Y)*” (Vanderbroeck & Wasserfallen, 2017 p93) by suggesting that females and Generation Y individuals share similar values and attitudes to their careers, salaries, work-life balance and accepted

³⁸ GDC May 2019 registration report <https://www.gdc-uk.org/api/files/Registration%20report%20-%20May%202019.pdf>

and acceptable behaviours. These tend to differ from the older generally male dominated ways of doing things (Vanderbroeck & Wasserfallen, 2017). Across the literature it is seen that females in leadership positions face a dichotomy of being criticised; *“if they adhere to traditional ‘female’ characteristics (e.g. nurturing/communal) they are considered too nice and therefore not capable/competent. If they assume more ‘male characteristics’ (agentic) they are considered to be too harsh.”* Women in leadership positions then often cannot win as they are criticised for being themselves, and criticised for not being themselves, *“Damned if you do, doomed if you don’t”* (Jonsen *et al.*, 2010 p552). A lack of females in principal positions to act as role models was reported by one study participant. This may be both as a result of past gender stereotyping issues, as well as a reason for it continuing. It is interesting to note that one of the male dentists was mentioned as being ‘too nice’ to run a practice by a female receptionist – highlighting that these gender assumptions continue to be active in all areas of dentistry, and that gendered assumptions don’t only affect women.

Training and education about gender in the workplace may be seen to be a key underpinning leadership concept, which should be considered. When taken as a singular and standalone entity, dentists may find little relevance in their own personal gender identity, or their reactions (conscious or unconscious) to those of others. However, tensions and stresses related to gender were noted within the findings of this study, which are mirrored in the above literature. When viewed in the context of the framework, these can be explained by appreciating that such issues are fundamental to the concepts of personal identity, relationships and their impact within

the wider Community of Practice. Identity and gender underpins matters relating to role models and stereotyping. The impact of individuals acting at the strategic and grand strategic (political) levels can have a wide influence, and it is therefore fundamental that people in these more influential roles are aware of the issues and manage them effectively. Situating specific learning through the linking of concepts in this way may help demonstrate their relevance to learners, as well as help faculty develop learning outcomes and authentic assessment strategies. These will in turn encourage authentic student development and minimise the 'tick box' reaction to training such as equality and inclusivity by contextualising it more genuinely to the dentist's leadership situation. Training may also therefore benefit from being refined in light of the framework to reduce inauthentic, standardised competency-based learning activities. This conceptual framework allows multiple toolkits or educational processes to be developed in order to create teaching, learning and/or assessment outcomes. One suggested idea for the above gender awareness illustration is given below.

An individual may have deeply held personal beliefs or values about gender role stereotyping relating to themselves or others, which are unconscious. If they are working at a grand strategic level, this may affect a wide variety of other people; via workforce planning, recruitment, employment issues and training. At an individual level, it may influence personal feelings towards colleagues and fit in with, or rally against an existing Community of Practice's culture or ethos. Other people may also have a similar tacit reaction to the dentist and their identity related to gender. This will then impact relationships positively or negatively at the dyadic level, thus influencing

those relationships and affecting the efficacy of leadership, potentially causing stress and tension. This will have bearing on the operational level day-to-day activities if relationships are negatively impacted, causing tension between the dentist and their nurse.

Depending on the personal position or context of the dentist (i.e. as individual or clinician) gender issues may also impact patient care by creating the need for emotional labour to overcome prejudice or ignorance (toward or from the dentist). This will create stress and tension, which may be difficult to understand if unconsciously held beliefs and values are not identified. From viewing this in light of the framework, it can be seen more clearly how gender can influence leadership, and therefore training and/or education can be authentically linked.

The concepts in the framework allow learning outcomes and assessment constructs and criteria to be created in relation to gender at many different levels.

Example outcomes might include:

- Describe your beliefs and values relating to gender and roles within the dental surgery setting.
- Discuss the impact of gender on relationships between dentist and dental nurse.
- Create a job specification and advert for a new senior specialist dentist to join the practice. (Assessment criteria may include recognising any identity or gender assumptions embedded within the final document).

- Identify your personal views on gender role stereotypes and discuss and debate a situation where these have been challenged, or created advantage or disadvantage to you or another.
- Create a letter for your dental nurse who has been underperforming and with whom you need to continue to work on a daily basis. The letter is to be suitable as a formal written warning. (As above, once written, any assumptions made relating to gender can be identified and explored).

As standalone outcomes, these may seem artificially simplistic and little to do with leadership. When considered in light of the framework, however, they can be regarded and reviewed from a leadership perspective. This demonstrates how individual learning outcomes might be distilled out for assessment or teaching and learning activities. Awareness of the linking of pedagogy to the framework using non-linear, more complex educational approaches as previously described, may support authentic and meaningful learning and formative assessment opportunities. Outcomes can be used at lower levels initially relating to understanding and awareness of gender for example, and later, higher order outcomes can be included to demonstrate synthesis of ideas, self-awareness, and critical reflection and evaluation of how to build and maintain relationships.

5.8 Advantages and limitations of framework.

Table 5.1 summarises the main advantages and limitations of the conceptual framework of leadership in supporting education. The research questions suggest initially its use to develop assessment constructs and learning outcomes to support valid teaching, learning and assessment. The framework as it has been conceptualised

has additional uses, including as a mapping tool, as a curriculum guide, and as an analytical tool to explore actual leadership performance of dentists. One of the main constraints is the amount of additional information and resources that underpin it. It can be used as a standalone tool, to aid understanding of the phenomenon of leadership. Additional resources (for example, relating to leadership levels, their relation to the dental practice setting, or critiques of specific current leadership theories) might be helpful to educators using the framework who may not have such a deep and detailed understanding of leadership. Developing such additional resources as a 'toolkit' for educators may be beneficial in future.

Table 5.1 Outlining the advantages and constraints of The Hanks Framework.

Advantages	Constraints
Based on empirical research at an operational level currently missing from the literature. Use of the framework facilitates operationalising of leadership rather than theorising about it.	Understanding the expanded model of leadership levels to primary care dental practice is not explicitly included in framework, therefore additional resources may be useful when using it
Concepts are higher order and overarching and do not limit to a single definition, theory or model of leadership.	Leadership remains a complex phenomenon which is difficult to educate for and assess
Can be relevant to multiple theories of leadership and aligns with the up to date current ideas of leadership as a social influence process embedding multiple dynamic influencing factors and moderators.	Does not provide a single definition of leadership for dentists and dentistry
Context sensitive through use of data being from operational level and leadership level influence helping to define specific context.	Leadership literature not explicitly aligned to framework although implies more modern up to date theories such as transformational, distributed, authentic and engaging. Additional resources may be useful to support such linking and alignment.
Has given practitioners a voice in the co-construction of new knowledge and ongoing education and development through embedding their ideas and insights on leadership. Move away from	EI seen as central underpinning to leadership and education activities related to framework. May not be accessible to those with low or reduced emotional intelligence.

top down to bottom up co-construction process.	
Concepts are higher order and abstracted, made possible due to rich dataset and thick description of dentistry of and by participants. Relevant to primary care dental practice in general and perhaps beyond (see generalisation in final chapter).	Does not relate obviously to the three separate activity system outcomes of patient care, running the surgery and running the practice. Additional resources could enhance these connections, especially to patient care.
Provides simplified representation to understand and interpret but maintains complexity of the phenomenon.	
Overlaps with other areas of a dentist's work so education may support additional areas of learning in addition to leadership. Embeds patient care as an outcome via the three original activity systems.	
Can be implemented in numerous ways to support education including mapping, development of learning outcomes and assessment constructs at various levels, as well as an analysis tool for dentist's performance.	

5.9 Testing the framework in practice.

Once the Hanks Framework had been developed and its theoretical uses, challenges and links to the literature explored, it was tested against the case data to consider its use for real life practice. In addition to the advantages and constraints noted above, some influential areas emerged as drivers or barriers to its operation in practice. These link back to specific areas of literature and reinforce or highlight where and how theoretical learning about leadership may support its practical operation by dentists in the primary care dental practice setting.

These drivers and barriers were demonstrated to have relevance across the whole framework, from the individual dentists to the entire practice Community and, while

outside the remit of this study, may benefit from further exploration in relation to leadership in and of themselves.

5.9.1 Stress.

It is widely accepted that dentistry is a stressful profession (BDA, 2019; Larbie *et al.*, 2017; Myers & Myers, 2004) with a recent report suggesting that, “*the high levels of self-reported stress, burnout & psychological distress....are a serious concern to the profession*” (Collin *et al.*, 2019 p47). Stress and tension were observed to impact and influence the dentists and their activities within and across every one of the individual case studies in various ways. Stress impacted on each of the three original activity systems (patient care, running the surgery, running the practice) as well as all six overarching concepts in the framework.

Burnout will often lead to depression, and stress increases the risk of developing mental health conditions such as depression, alcoholism, sleeplessness and drug addiction (Denton *et al.*, 2008; Hill *et al.*, 2010; Kay & Lowe, 2008; Larbie *et al.*, 2017; Myers & Myers, 2004). The highest reported consequence of stress and also the one reported to impact most on family life outside of work is nervousness (Larbie *et al.*, 2017). Where participants demonstrated intellectual and cognitive engagement with, or reflected on, their levels of stress, fewer unexplained or insurmountable tensions or negative impacts were noted. Stress may be observed in those in the leadership and followership roles as well as being found in any individual throughout the Community of Practice. Stress was seen as a potential barrier to the operationalising of leadership within and between concepts in the framework.

Many of the stresses highlighted by participants in this study can be seen to be systemic rather than related directly to the individual, and this suggests that perhaps a change is needed to the system and culture in addition to the dentist finding ways to cope (Collin *et al.*, 2019). Reports on stress in GDPs have identified numerous systemic stressors including, time limitations, working in the NHS, working environment and conditions, fear of regulation and litigation, unrealistically high workload, and patient issues (Brown *et al.*, 2010; Chapman *et al.*, 2015; Kemp & Edwards, 2014; Larbie *et al.*, 2017; Myers & Myers, 2004). Working quickly to see as many patients as possible has to be balanced with patient satisfaction, meeting expectations, not running late and having time to deal with more demanding patients and situations. Where practical, system solutions such as supporting manageable workloads, reducing administrative burdens and setting more realistic targets (Kemp & Edwards, 2014; Lemaire & Wallace, 2017) can be implemented, these will reinforce the individual's internal processes of stress management. It was evident from this study that the practice principal was constantly juggling multiple jobs and conversations, many related to regulatory and efficiency matters and these issues thus mirror the findings of existing studies. At the individual level (dentist as individual; personal and professional identity) multiple factors were identified that required resilience and stress management strategies.

Considering the framework against the data demonstrates that dentists will not be able to perform their leadership activities effectively if the impact of stress is hampering them. Decision making and problem solving (Porcelli & Delgado, 2017) and therefore the overall capability and flexibility of the dentist will be affected. This may be an opportunity in which the framework can be used to support an individual to

identify the effects of stress in themselves and others, as well as to educate and develop strategies for overcoming it. Leadership training that includes engagement with higher order thinking and reflective and metacognitive processes may therefore help mitigate some of the risks that such stress poses. Individual, relational and system stressors require the capability and flexibility of the dentist across the full range of their internal emotional and cognitive processing, which is related directly to the immaterial labour, emotional labour and articulation work discussed in the literature review (Iedema, 2011; Iedema *et al.*, 2006; Held & McKimm, 2011; Nicolson *et al.*, 2011). The practical day to day stressors such as managing staff absence, lateness or lack of expertise or aptitude, highlight transactional elements of the transactional-transformational leadership continuum (Avolio *et al.*, 1999; Bass, 1990; Bass, 1997).

It appears, also, that wider business awareness (whether related to personal income and finance; practice business and finance; or efficient running of the clinical environment) are fundamental leadership requirements for all dentists that often caused or were influenced by stress. This business awareness could be enhanced through leadership education to enable the dentist to become aware of, identify and then learn to manage, such powerful tensions and conflicting priorities. Supporting the dentist to be aware of their personal position or context links directly to literature on leadership levels and the idea of **how** they practice their leadership roles within the context they are inhabiting. Identity links to the 'who am I?' and personal context to the 'where am I?', which aligns with ideas in the engaging, compassionate and collective leadership literatures (Alban-Metcalfe & Alimo-Metcalfe, 2009; Alimo-

Metcalfe & Alban-Metcalfe, 2008; Cullen *et al.*, 2014; King's Fund, 2011; King's Fund, 2012; NHS Improvement, 2016; West *et al.*, 2017; West *et al.*, 2014).

Identifying where the higher grand strategic level issues may have originated from and their subsequent impact within the specific Community of Practice can reduce some of the stressors within the practice and staff, but this in turn places a greater burden on dentists in managerial roles (usually principals) to recognise this impact. This requires consideration in their leadership support or development activities, and links to the more transactional end of the transactional – transformational continuum. Managing the grand strategic level impacts on daily practice life needs them to be aware of their personal context or position in relation to the impact, to manage their own reactions, and influence others' reactions, so that they are able to support and maintain the whole team effectively. This in contrast to the recognition of impact alone tends more toward the transformational end of the continuum, and so a constant balance and awareness of when to use and rely on which can also be useful.

The day to day activities of the CoP as a whole, in addition to the dentists and their relationships, was seen to be influenced by stress in any of its members or systems. Using the framework as conceptual lens against the cases helped to identify where stress was causing a problem to occur, and identify and recognise its impact and/or how to manage it. It also highlighted how the CoP and the relationship concepts of the framework align with the concept of 'crossing boundaries' found in the engaging, collective and compassionate leadership literature noted above; which often reduces in response to stress.

5.9.2 Building relationships within a dental practice.

Developing and maintaining effective relationships requires emotional intelligence to embed the awareness of one's own emotions and their impact on a situation or relationship as well as the reciprocal influence of the other person and their responses (Rajah *et al.*, 2011). Dentists need to be mindful of their relative position of role and status (such as employer or colleague) and the potential power differential, which may also engender a reaction in another (Freeman *et al.*, 2004).

The dentist-nurse relationship is fundamental to efficient activity while also having the potential to give rise to multiple challenges and tensions. An effective relationship is therefore imperative and a friendly and conscious expectation from the dentist that the nurse is there as part of the team to be supported, not just to follow instructions and clean up after them, may perhaps facilitate a respectful atmosphere and enhance this relationship. The relationship works best when the dentist shows genuine concern and care for their nurse, in line with the ideas of Authentic Leadership (Alilyyani *et al.*, 2018; Luthans & Avolio, 2003) and the 'individualised consideration' element of Transformational Leadership (Avolio & Bass, 1995). Such leadership ideals can facilitate higher quality relationships and a positive response when the dentist is perceived as authentic, open, truthful and willing to invite participation in decision making, so that the nurse feels "*empowered and supported in their work*" (Alilyyani *et al.*, 2018 p 35).

The biggest issue for the dental nurse has been reported as being taken for granted (Gibson *et al.*, 1999). An authentic leadership approach again might alleviate that concern as it endeavours to promote an environment where all feel "*respected, trusted and appreciated for their contributions*" (Alilyyani *et al.*, 2018 p35). This may be

challenging in a situation where working partnerships change frequently or where there is a lack of engagement by either party into making the relationship positive. For dentists it is therefore important to learn that their relationship with their nurse does not end when the patient leaves the surgery. If their personal and professional identities are congruent it will be easier for them to continue this relational authenticity (Eagley, 2005) and where the relationship is friendly and respectful, this will lead to fewer tensions and less trouble. Identity and relationships are aligned with authentic, transformational, congruent and engaging leadership theories, all of which are underpinned and embed elements of EI.

This study has demonstrated that a dentist has to build relationships with a wealth of other individuals and collectives who transition in and out of their team at various times and in various ways. When these individuals become involved in the activity systems through the 'division of labour', they become a 'practitioner' within the CoP, and thus a member for this limited period. Examples of this are laboratory technicians, waste collectors and company representatives. Patients may also inhabit this role for short periods, for example when they are making appointments. Dentists will first need to recognise the temporary member as such, and that these relationships will each have a different purpose and be in a distinct and specific context, often for a short, well-defined time period. This situation is mirrored in existing literature relating to cross-functional and multidisciplinary teams, where the work is highly variable and context dependent (Schmutz *et al.*, 2013; Yun *et al.*, 2005). Being able to function effectively within such transitory teams is labelled a 'complex intervention' and has been reported to influence clinical performance (Schmutz *et al.*, 2013; Sims *et al.*,

2015). Kunzle et al (2010) found that where emergency healthcare teams are inexperienced or transitory, the team leader needs to be more directive and involved. Dentists therefore need capability and flexibility in their situational judgement, relations, action and quick thinking to handle the leadership requirements in such situations and prevent any negative impact on their patient care. Throughout the working day, the dentist needs to demonstrate continual flexibility as the CoP transitions between the (hoped for) stable and experienced core CoP, to transitory and inexperienced, as various temporary members join and leave, mirroring the immaterial and emotional labour and relational authenticity found in the literature (Alilyyani *et al.*, 2018; Eagly, 2005; Iedema *et al.*, 2006; Nicolson *et al.*, 2011).

Many of the individuals involved in this study used the family metaphor when talking about the close knit internal practice community (CoP) and this finding is akin to literature from community nursing teams where a familial model of leadership was reported (Cameron *et al.*, 2012). This takes hard work and effort (noted across the findings of all principal dentists), and becomes more difficult to sustain when workloads are high. Dentists need to be mindful of the risk of burnout, and the subsequent diminished capacity it results in, when trying to balance workload with such a culture (Cameron *et al.*, 2012; Rajah *et al.*, 2011).

Of all the relationships a dentist has, the relationship with patients, and the focus on them (individually and as a collective) was seen when testing the framework to impact across all leadership activities. Patients will miss appointments, not want or be able to take advice or afford treatment, and have emotional reactions. As noted earlier, patient factors are among the most common stressors for a dentist (Collin *et*

al., 2019; Kemp & Edwards, 2014; Brown *et al.*, 2010; Chapman *et al.*, 2015) and a dentist's ability to form effective relationships with patients, who become an integral part of the team for often multiple transitory periods while in the practice, is essential.

Transformational Leadership is suggested as being an appropriate model for healthcare practice as it has been related to motivating and influencing patients (Avolio & Bass, 1995; Huynh & Sweeny, 2014). However, its critique mirrors that of Authentic Leadership, as having its roots in heroic and trait theories that are leader-centric, so not taking the response to leadership or the followers' behaviours into account and therefore not being aligned with patient centred care. This further leaves it open to the impact of the dark side of traits such as charisma, where control, subversion and personal gain may be the motives rather than more altruistic and honourable intentions (Alimo-Metcalfe & Alban-Metcalfe, 2008).

Authentic Leadership suggests that patients will trust their dentist if they are promoting an environment where everyone feels respected, trusted and appreciated, and where they are invited to participate in decision making (Alilyyani *et al.*, 2018); in much the same way that it is said to align with the dentist-nurse relationship. It may be problematic, however, if the patient does not respond in the hoped for manner and it has therefore been suggested that it is 'relational authenticity' that is more important than the dentist's individualised agency.

Supporting dentists to build effective two-way relationships will help support all their activities, and using the relationship element of the leadership framework can reframe them into a leadership context to support development and training. Linking the relationship element of the framework to authentic, transformational, engaging

and compassionate leadership theories may allow such theoretical knowledge to impact their practical operation of leadership.

5.9.3 The Impact of working in a Dental Body Corporate.

Within the Dental Body Corporate (DBC) practice, multiple constraints to leadership were noted across several elements of the framework and areas of the dentist's practice, including stress of the dentist (related both to identity and personal context); relationships within the CoP; and the associate dentists taking less responsibility for leadership than associates in an independently owned practice. There seemed a more distant relationship between the dentist and nurse, which was not mirrored in the unfamiliar dentist-nurse partnership in an independent practice. It therefore appeared to be about more than the lack of familiarity in the working relationship. Differences between associates in DBC and independent practices can be explained and described in relation to leadership levels and the expanded organisational level table (Table 4.3 p181) and the subsequent potential for anonymising the individual within the DBC structure. In a DBC where both dentist (anonymous) and nurse (anonymous) are employees of a bigger management structure and subject to more bureaucracy, they feel less empowered and subsequently demonstrate less ownership than those working in an independent practice (Tye & Dent, 2017). When this individual consideration is removed, many of the fundamental elements of the dentist's leadership are lost which may lead to a lack of input and engagement into ongoing team working, development and training. Recent British Dental Association (BDA) survey findings of associates in DBCs echo these findings and report that such associates describe having less autonomy and

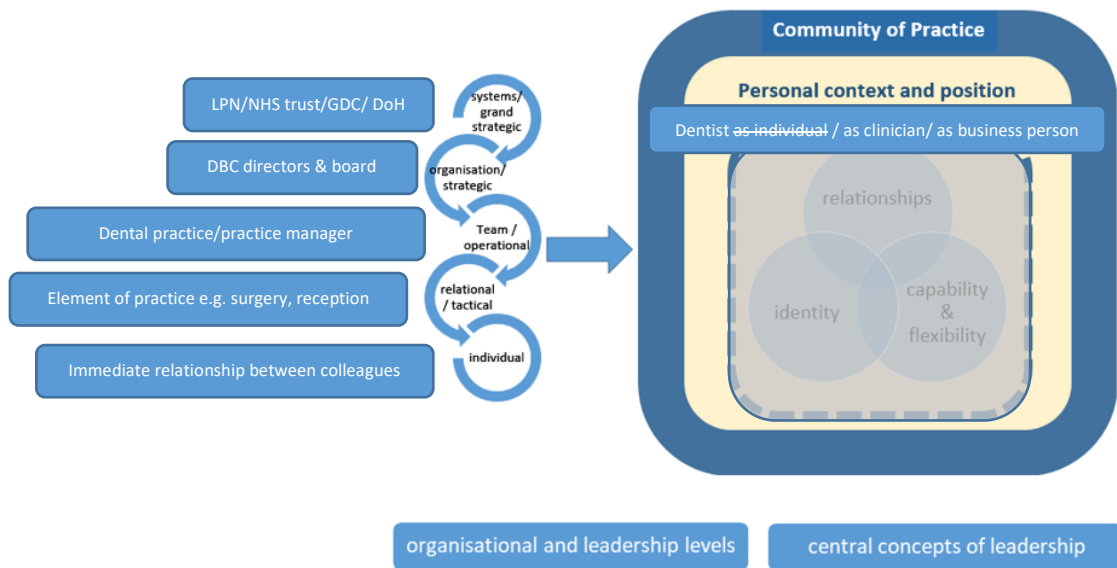
control over workplace and clinical decisions than those from non-corporate practices (O'Selmo *et al.*, 2018; Kemp & Edwards, 2014). These issues are all seen as additional causes of stress for dentists. Individualised consideration is a key area of transformational leadership (Avolio & Bass, 1995) and the confusion around identity, personal context and leadership levels for dentists working in a DBC align with authentic and collective areas of the leadership literature (Alilyyani *et al.*, 2018; Gardner *et al.*, 2011; Hopkins & O'Neil, 2015; Lloyd-Walker & Walker, 2011; West *et al.*, 2014).

The impact of the identity (personal and professional) of the dentist has been clearly espoused, and the integrated and reciprocal links with their relationships, capability and flexibility, personal position and the Community of Practice they are working in, demonstrated. When this is effectively removed by a DBC many of the fundamental elements of the dentist's leadership within a practice are lost. It was noted that when removing the individual there may be a slight increase in dentist as business person, in that there was more emphasis placed on the transactional element of coming to work to earn money. Because most DBC dentists are paid a fixed salary, this will be moderated by the context as clinician in the actual patient care, but may impact when looking at number of appointments per session, attitude to absence and helping and supporting colleagues i.e. seeing someone else's patient, sharing materials.

With the framework being grounded in the data at the operational level of the dentist, the impact of removing the individual can be demonstrated clearly (Figure 5.4). Not only are the three central individual concepts lost, but the 'dentist as

individual' personal position is also removed. As every part of the framework has been seen to work only in relation to the other parts, this anonymising may render the entire leadership of the dentist (including the embedded patient care outcome) ineffective at worst, and lead to stress and unhappiness for the dentist at best. Removing the individual therefore may leave an 'unfilled space' for the dentist in question, who may simply find the work unrewarding and ultimately leave the practice. For the dentist themselves this may be the reason for the noted differences in experience, stress levels and perceived lack of autonomy found in this study and the wider literature (Collin, 2019; Kemp, 2014).

Reframing the areas noted in light of the framework when operationalising leadership in a DBC may enable meaningful exploration of problems and subsequent solutions. Linking these to the literature may also provide a theoretical framework for development activities specifically for those dentists working in a DBC environment – as well as their managers and boards. The framework does not limit outcomes or process and it may be that an associate dentist in a DBC is not equivalent to an associate dentist in an independent practice meaning that different leadership activities may be required with their associated development and education needs.



**Figure 5.4 Impact to the leadership framework of working in a Dental Body
Corporate and overlooking the individual dentist.**

Because leadership is the combined outcome of the individual activity system outcomes of patient care, running the surgery and running the practice, the patient, the practice and/or the business may suffer negative consequences when the dentist as an individual is not considered. Using the framework at strategic and grand strategic levels may help to illuminate issues with the structure of DBCs and find ways to reintegrate the individual concepts and de-anonymise the dentist.

5.9.4 Reflection, reflective practice and self-development.

Self-development supports the notion of the individual as both learner and leader, taking responsibility for and enhancing their own personal and professional growth. Each one of the cases demonstrated clearly when dentists were engaged with the higher order thinking and reflective practice ideals to a greater or lesser extent, and the impact of that. Related to identity, relationships, their capability & flexibility, self-awareness and understanding of their personal context, use of the framework was

able to identify where issues may have originated from for that specific dentist. These origins then link subsequently to a related area of theory that can support development. The main links were to elements within authentic or collective leadership ideas, or where leadership was relying on outdated heroic concepts and based purely in a competency or transactional paradigm.

Multiple sources of feedback and reflective processes can inform development in cognitive and emotional (affective) domains, enabling learners to gain insight independently and collaboratively, and (co)-construct strategies for learning and development (Mann *et al.*, 2009; Wald, 2015). This relates directly to the idea of collective and compassionate leadership ideals found within a CoP. Self-development should enhance acceptance and positive response to more formative, continuous forms of assessment that encourage the individual to perform in a role and develop capability in addition to merely passing an exam to be deemed competent (Fraser & Greenhalgh, 2001; Hanks & Neve, 2016; Neve & Hanks, 2016). This approach will also encourage an individual to optimise the use of opportunities for further self-development in an iterative, ongoing process. Self-development may be enhanced by engaging in one to one coaching and mentoring that involves an in-depth rich narrative process with self-exploration and reflexivity (Grant, 2007; Hodges *et al.*, 2011; Ray, 2017).

Reflection and reflective practice refer to the ability for the individual learner to link activities with learning and vice versa, and act as a complement to experiential learning (Thompson & Pascal, 2012; Uygur *et al.*, 2019). Through learning from role models, seeking feedback and engaging in discussion and debate, reflection works

across cognitive, emotional and metacognitive domains to empower the individual to improve and enhance critical thinking, integrate knowledge with practice and deal with uncertainty (Mann *et al.*, 2009; Thompson & Pascal, 2012). The ability to include non-cognitive areas promotes and integrates the affective aspects of learning (Brookfield, 1998; Mann *et al.*, 2009; Wald, 2015) that have been noted as crucial for leadership through use of this framework. Experience is practical but sensed at an emotional level and in itself does not necessarily lead to learning. The reaction to experience is visceral and goes much deeper than reason; reflecting on experience therefore and having support to identify and analyse assumptions and deeply held beliefs that lead to emotional reactions can lead to a deeper, more meaningful and helpful learning (Brookfield, 1998).

Reflective practice is a deliberate, ordered and conscious activity, which does not occur spontaneously, and is more likely to be driven by a complex situation or where there is surprise (Mann *et al.*, 2009; Nguyen *et al.*, 2014; Uygur *et al.*, 2019). Reflection supports learning from experiences and sense making in and of complex situations (Epstein & Hundert, 2002; Mann *et al.*, 2009; Thompson & Pascal, 2012). Reflection and reflective practice can be enhanced through the use of skilled mentors, coaches and supervisors, and is additionally linked to the formation and development of professional identity (Wald, 2015). Methods to encourage reflection are numerous and include reflective writing, small group learning, authentic context, supportive environment, guidance, supervision, discussion and feedback, use of humanities teaching and by accommodating different learning styles (Mann *et al.*, 2009; Moon, 2006; Wald, 2015). Time must be dedicated to reflective practice or activity can

become habitual and unconscious, and clinicians can find themselves working contrary to their beliefs and values, and in rigid and formulaic ways which leave them unable to deal with the unexpected (Thompson & Pascal, 2012). Through support for developing personal and professional identities; understanding the CoP in which they reside; and linking to ideas across authentic, collective and engaging leadership as well as learning about and developing EI, the framework highlights how the practical aspect of leadership might be learned and developed and how this may be supported by the existing literature.

There are numerous reflective tools, such as the Gibb's cycle (Gibbs, 1988) available to help structure reflection, from which resulting reflections can be assessed across a range of criticality. One such range is Wald's REFLECT criteria which assesses reflection from habitual action (non-reflective) to thoughtful action or introspection to reflection and the ultimate critical reflection. Once critical reflection has been attained, learning is described as transformative or confirmatory (Wald *et al.*, 2012).

Reflective practice is reported to lead to more thoughtful practitioners who have a heightened awareness and tolerance of uncertainty and who are comfortable with the idea of there not always being one single correct answer. This aligns with the capability and flexibility aspect of the framework and the literature on managing the uncertainty of such situations through immaterial and emotional labour, self-regulation, EI and articulation work. The original structure of reflective practice introduced by Schön of reflection-in-action and reflection-on-action has been found to be useful and relevant (Mann *et al.*, 2009; Schön, 2007); and an additional level of reflection-for-action has

been proposed to enable planning, forethought and preparation (Thompson & Pascal, 2012).

In recognition of the importance of reflective practice the General Dental Council has published a joint statement along with eight other healthcare regulators on the benefits of becoming a reflective practitioner and how to embed this into clinicians' practice and CPD (GDC, 2019). The document suggests that reflection is "*a familiar, continuous and routine part of the work of health and care professionals.*" While it does not link it to leadership directly, reflective practice is said to build resilience, improve well-being and deepen professional commitment – all areas that have been linked to effective leadership in this study and across the healthcare literature. Reflection and self-examination have been linked explicitly to leadership development and effectiveness elsewhere (McKimm & O' Sullivan, 2016; Thompson & Pascal, 2012) and such an educational approach underpins both leadership and learning when considered with this framework. As noted earlier, dentists who engaged with reflective practice, and who engaged intellectually with the higher order thinking and metacognitive elements of their practice and identity, appeared much less negatively impacted by stress. Such self-development and reflective practice approaches will inevitably then optimise the utility of the leadership framework in practice.

5.9.5 Emotional Intelligence and relational theories

Emotional Intelligence (EI) (Akerjordet & Severinsson, 2008; Codier, 2014; Goleman, 1998) and relational theories including authentic, congruent, collective, compassionate, engaging and transformational (Alimo-Metcalfe & Alban-Metcalfe, 2008; Alilyyani *et al.*, 2018; Avolio & Gardner, 2005; Clarke, 2013; Gardner *et al.*, 2011;

George, 2003; Judge & Piccolo, 2004; King's Fund, 2012; NHSImprovement, 2016; Stanley, 2008; West *et al.*, 2014) have been associated with numerous ideas across the leadership literature, the study findings and the use of the framework here, to help identify drivers and barriers to the practical operation of leadership. Additionally, EI has been shown to be a complex phenomenon in itself and can be conceived and defined as including,

“the ability to engage in sophisticated information processing about one’s own and others’ emotions and the ability to use this information as a guide to thinking and behavior. Individuals high in EI pay attention to, use, understand, and manage emotions, and these skills serve adaptive functions that potentially benefit themselves and others” (Mayer *et al.*, 2008 p503).

This definition underpins the three clusters of competency (emotional intelligence, social intelligence, cognitive intelligence) originally described by Boyatzis as underpinning leadership, and depicted in the literature review, figure 1.2 (Boyatzis, 2008). Boyatzis’ three ‘competences’ are often seen as interrelated elements of emotional intelligence (Akerjordet & Severinsson, 2010; Goleman, 1998; Walter *et al.*, 2012). They align with the need for dentists to have individual capacity to deal with stress and manage relationships, as well as be aware of and able to critically reflect on their identity and engage in self-development and reflective practice. Dentists may therefore benefit from the opportunity to engage with and develop their own emotional intelligence, understanding and strategies. EI underpins leadership as well as the learning about leadership; and is therefore fundamental to leadership activities themselves as well as engagement with the related educational and development

approaches. When the framework was tested against the cases EI was seen to be an underpinning element acting as both driver (demonstration of high EI) and barrier (demonstration of low EI) to the dentists' operation of leadership across all the cases.

The willingness to take responsibility for EI and the understanding of what it entails is aligned to literature which posits the need to embody and integrate 'being' a leader in contrast to merely 'doing' leadership (McKimm & O' Sullivan, 2016). Embodying successful leadership within personal and/or professional identities can be linked to the relational theories above where leaders know who they are and understand the values that guide them in their work (Alilyyani *et al.*, 2018; Avolio & Gardner, 2005; Lloyd-Walker & Walker, 2011). Authentic, transformational, collective and engaging leadership theories have been noted to offer useful models when related to teamworking within the CoP and relationship building. Relational theories have been posited as the most closely aligned to clinical leadership in healthcare. The critique that they may not be gender neutral, are biased toward a male standpoint and may not take the follower response into account is recognised (Eagly, 2005; Hopkins & O'Neil, 2015; Judge & Piccolo, 2004). Left uncritiqued, relational theories could be perceived to be heading back to the dark days of medical paternalism and being overly influenced by the clinician rather than toward the contemporary idea of patient centred leadership (King's Fund, 2013). Patient centred leadership is not about doing what each patient wants, but involving everyone, including patients, in important decisions about their care, so that everyone is working together. Use of the framework highlights when patients become part of the CoP, and link then to these critiques of theory as well as the theories themselves.

For the relational theories such as authentic, congruent, engaging and transformational to be useful for dentists in practice, it is important to reiterate that leader authenticity is defined by positive ideals, behaviours and accepted virtuous ethical principles (Eagly, 2005; Hopkins & O'Neil, 2015), not merely aligned to personal ideals which may be other than those accepted as positive. As such, relational theories in addition to EI, may provide useful models to appraise and engage with when considering leadership in dental practice. Using the framework has shown that they can be introduced initially via any of the three individual central concepts of identity, relationships or capability and flexibility. They are also linked to the CoP as a whole.

That EI is needed for leadership, for its learning and development and is linked to professional identity formation may pose an issue in individuals who do not, or cannot, connect with the concept intuitively or intellectually. Disorders such as the autistic spectrum disorders (ASD) are clearly linked to impairments in emotional intelligence (including awareness of self and others' mental states and self-regulation) (Bachevalier & Loveland, 2006; Cai *et al.*, 2018; Huang *et al.*, 2017; Williams, 2010). Other conditions are linked in a similar way such as, Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD) and dyslexia (Narimani *et al.*, 2009; Posner & Rothbart, 2000; Sako, 2016). This highlights a potential issue relating to inclusivity in the education of dentists or their leadership development if they suffer from one or more of these, leading to problems with social and emotional regulation. The framework of leadership itself may not be accessible to them, and the preferred educational approaches supporting training and development activities may also be out of reach. This area may be an important consideration to explore further how

education might best support dentists and/or students who are affected by one or more of these conditions.

5.9.6 Summary.

Testing the framework against the cases as above has enabled links to be made between practical leadership in the dentists' day to day work and key themes from the literature review to be identified. The areas that were noted as particular drivers and/or barriers have been explored and discussed. An overview can be seen in table 5.2 as to how varying elements of the framework may link to the literature including their reviews and critiques. As with the framework itself, many theories and ideas cross boundaries and are relevant in and to multiple concepts of the framework. Additionally, other areas of the literature may be relevant in specific situations or for certain individuals. The table is indicative and not exhaustive, but may help underpin the practical application and embedding of leadership effectively into dental practice.

Table 5.2. Demonstrating how the concepts of the framework link to the leadership literature in the day to day practice of dentists.

Framework element	Links to literature
Identity	Authentic, congruent, transformational leadership theories and EI.
Relationships	Relational theories including (collective, authentic, transformational, engaging, compassionate). EI. Emotional and immaterial labour.
Capability & Flexibility	Complex internal processing at affective, cognitive and practical levels, linked to EI, immaterial and emotional labour and articulation work.
Personal context, position of dentist	Crossing boundaries. Engaging, collective, authentic, congruent leadership theories. Leadership levels. EI.
Community of Practice	Collective, compassionate, engaging, transformational, authentic, congruent, transactional leadership. Crossing boundaries. EI. Followership. Leadership levels.
Leadership level	Leadership levels. Collective leadership. Followership. Crossing boundaries.

5.10 Conclusions.

Using the metacognitive, higher-order central propositions of leadership (as opposed to cognitive and behavioural competencies) to define the overarching concepts, the framework depicting the concept of leadership in figure 5.3 has been developed.

The framework provides a tool to understand the operationalising of leadership in dental practice based on co-constructed context sensitive data, currently missing from the literature. When viewed in its entirety it facilitates understanding of leadership in dental practice, while still embedding its complexity. Aligning with contemporary ideas on leadership, including post-heroic theories such as relational and authentic, it acknowledges leadership as a socially constructed, dynamic, multifactorial, reciprocal

influence process. It poses a challenge to the older outdated oversimplified approaches to leadership, and in particular, the definition of clinical leadership as a competence based set of skills found currently in the dental literature. The framework's complexity enables multiple relevant definitions, theories, models and concepts to be taken into account, while not being limited by, nor advocating solely any of them.

This framework can be used for mapping against other existing frameworks and outcomes based documents; to develop and link curricula and their elements; create learning outcomes and assessment constructs; as an analytical tool; and to enhance reflection and reflexivity. It adds to, underpins and may be used to refine current policy and governance documentation and guidelines available in the healthcare and dental regulatory literature.

The chapter emphasises some areas that impact and affect the operationalisation of leadership and how these relate to the framework, to the dental practice setting and to the literature. Several areas have been considered in depth and areas to include in leadership education have been recommended.

The framework provides an evidence based tool to be used for the development and education of the complex area of leadership in multiple ways. It has the ability to support multifaceted and non-linear educational approaches to "*escape the repetitive refrain of competencies*" (Howieson & Thiagarajah, 2011 p11) and address unambiguously the opening quote in the chapter stating that "*effective leaders are not the sum of a set of competences*" (Alban-Metcalfe & Alimo-Metcalfe, 2009 p12). It has been shown to incorporate exploration and support of a wide range of issues from

personal and professional identity to the challenges of the corporate structure of dental practice.

Finally, this framework may be able to cross boundaries into other areas of dentistry, or to other healthcare settings professions. The concepts may provide an overarching higher level canopy of leadership for any clinical setting, so that more context specific, concentrated outcomes can be developed. This will be discussed further in the following and final chapter of this thesis under generalisability.

Summary & Conclusions

Rethinking leadership education for dentists.

“I do more leadership than I realise. Patient management you learn at dental school
but the rest of it comes with experience”

(Principal Dentist)

C.1 Summary of study.

This study was conceived in light of a plethora of new regulatory and governance guidance embedding leadership into dental education and training. The advent of such documentation was set against the backdrop of political influence in medical practice that had seen reports, such as the Francis report (Francis, 2013), identify the need for leadership in the healthcare system to prevent reoccurrence of tragedies and abuses of systems that had caused patient harm. Leadership had been highlighted as the answer, but in doing so had opened up numerous questions about what exactly it was and how to educate for it.

It was concluded from a three stage narrative review of the literature across healthcare that leadership is a socially constructed reciprocal influence process that is context dependant. Over time, the focus has shifted from leaders to leadership and there are multiple definitions, models and theories with none explicitly connected as being relevant to dental practice. Leadership is as much about those who are responding to leadership (followership) as it is about those who lead and their

leadership behaviours. The need for context sensitive empirical data at an operational (patient care) level of leadership was noted.

The study methodology was novel and innovative, combining traditional ethnomethodology, Video Reflexive Ethnography (VRE) and Activity Theory. The blending of these methods and methodologies allow the constructivist and interpretivist elements of each tradition to be incorporated to explore leadership, and co-construct findings, so aligning with the socio-cognitive paradigms of both learning and leadership. VRE and Activity Theory are both approaches that lead to transformative or expansive learning (Johnston & Dornan, 2015; Iedema *et al.*, 2019). Activity Theory via the zone of proximal development and VRE through engaging clinicians working in the zone of maximum complexity. Both of these include the need for researcher and participant to learn from and with one another to discover more than would be possible by the researcher alone. The subsequent rich, detailed findings that emerged, enabled metacognitive and higher order concepts to be revealed (Polit & Beck, 2010) so enabling leadership in the dental practice setting to be fully and deeply explored.

Three individual activity systems whose outcomes were patient care, running the surgery and running the practice emerged. Their integration and combined outcome of leadership in dental practice was subject to rigorous and robust cross case comparative analysis, which alongside the study of contradictions within Activity Theory gave rise to six central propositions and related concepts of leadership. Three of these were situational: Organisational and Leadership level, Community of Practice

and Personal Position of dentist (as individual, as clinician or as business person). The remaining three pertained to the individual: Identity, Relationships, 'Capability and Flexibility'.

These findings resituated leadership firmly back into the practice domain in relation to both the individual dentist and the healthcare environment. They provide understanding of the assessment constructs of management and leadership along with the "*solid scientific evidence of their meaning*" (Downing, 2003 p830). Such understanding and evidence was highlighted in the introduction to this thesis as being prerequisite for valid and authentic assessment. The literature review highlighted that while there are a number of healthcare leadership competency frameworks available, there is a currently also a gap in the literature pertaining to their underpinning meanings and theoretical basis.

The key aspect of each of the six propositions was used as a central concept for the final framework. Each concept was positioned, interconnected and embedded to depict their reciprocal influences on the others and their interdependence. Use and operationalising of the framework was discussed and examples provided. Further discussion explored a variety of considerations that impact the framework and constrain, limit or facilitate its use for practical leadership and education.

The use of in-depth qualitative research is well suited for revealing higher order concepts related to a specific study (Polit & Beck, 2010). This work has provided an evidence base for discovering such higher order concepts and metacognitive strategies related to leadership in dentistry. The framework is grounded in the data collected and

co-constructed with the dentists themselves as they worked in their 'zone of maximum complexity' to deliver a bottom up approach and a strong context sensitivity. This has enabled the production of a final framework that is different to the behavioural and competence based models already in existence through embedding the contextual complexity and multivoicedness of leadership within it. It complements and provides opportunity to add to and/or support their continued use.

C.2 Relevance and implications for stakeholders.

The Hanks Framework potentially affords a foundation for various professional, educational, curricula, programme and mapping purposes. From having no single accepted definition, model, theory, or operationalised data, and with no context to link to the wider healthcare community in the current literature, it delivers a tool that can help situate, frame and make sense of this phenomenon for various sectors of the profession.

C.2.1 Dentists.

The work has highlighted a stark difference in experience and activities between principal and associate dentists. Training and development needs to take that into account to support dentists in both roles. Training in business and finance including when and how to charge patients for care and services, has been seen to be an essential component to support leadership and reduce emotional stress and tension. A patent difference was also discovered in the experiences of associates working in Dental Body Corporates (DBC's) and independent practice. Initial training for dentists will support them in making informed career choices. The framework clearly depicts

that the individual three concepts are integral to the overall leadership activity of a dentist which embeds patient care. Education and training of dentists as well as perhaps the boards of DBCs will therefore overall enhance the quality of care given to patients in ensuring the importance of each individual dentist is considered.

Gender differences and effect of sex role stereotypes and unconscious bias impact all dentists and their relationships. The dentist-nurse relationship is fundamental to the dentists' activities and gender issues need to be educated for including their impact on building and developing positive working relationships. Female principals were seen to be impacted significantly by gender issues in their relationships and in their 'being in charge' with a lack of role models or ideas how to manage that effectively. The framework has been used to identify elements of identity, relationships, and community of practice where training and support could provide help.

The framework now gives an opportunity for the regulatory and governance publications from part one of the literature review to be linked to the dental context as it was noted that they were all mapped currently to GMC publications only. Through embedding the complexity of leadership within it and including higher order concepts, the framework is more powerful than providing a new theory of leadership, as it is not limited or bounded artificially by a single definition, model or theory. Through aligning with contemporaneous ideas, however, it clearly prevents outdated theories such as trait, heroic and behavioural competence framework models to be perpetuated. For

the same reasons it will remain relevant through new iterations of grand strategic level development and change.

The concept of emotional intelligence (EI) has recurred throughout this thesis. Dentists need to have and understand the idea of EI for all their leadership activities including for patient care. Whether EI is linked to a specific leadership theory or discussed in its own right, its development is essential for dentists and underpins many aspects of the framework. Where individuals have problems engaging or identifying with it, this needs to be recognised, acknowledged and managed, through personalised education and development strategies.

This study has enabled the practitioners working in the zone of maximum complexity (Iedema *et al.*, 2019) to have a voice in the development of the framework for leadership from empirical research. Through ongoing use of the framework they may continue to influence their profession across a number of levels in numerous ways, thus providing a different point of view to the more common top-down regulatory approaches. Other dentists recognising this, may have more affinity with the framework, and engage with it in authentic and useful ways.

Dentists may also find that they are more easily able to access contextualised leadership training and development opportunities that have been produced through use of the framework. These will be more relevant directly to their working environments than generic leadership training activities that they may have to work out how to apply themselves. Use of the framework may also simply help them to

understand their own practices and see things that have until now been tacit and unseen in the same way that the participants of this study benefitted.

C.2.2 Education.

Educators in undergraduate and postgraduate dental training now have evidence based, context sensitive and in-depth constructs on which to compare, refine and create authentic learning outcomes and assessment criteria. They also have metacognitive and higher order concepts linked clearly within a structure with which to support, underpin and align with regulatory and governance frameworks to facilitate development of training activities and curricula development. This will enhance leadership education itself, the link to the wider regulatory and governance agendas, as well as the understanding of the 'lived ideology' of dentists.

The use of VRE with individuals may be extended into education practice in addition to research and used as a tool with which to develop leadership. This could be undertaken in undergraduate and postgraduate settings incorporating reflective and reflexive elements to enable learning and development.

C.2.3 Policymakers and Regulators.

Up until now the GDC was working with the 'intellectual ideology' of leadership in dentistry as there was limited academic evidence to do otherwise. This framework, therefore, provides support from an academically rigorous evidence base situated in the 'lived ideology' perspective, which may support ongoing development and refinement of undergraduate learning outcomes as well as standards for qualified registered practitioners.

This academic evidence base also provides such a link for other policy makers and regulators such as the CQC, FMLM and King's Fund, when creating or refining policy and guidance for healthcare leadership that will have specific relevance to dentists. This will enable those producing such documents to demonstrate that their outputs are clearly relevant and meaningful when purporting to be for dentists as well as doctors for example, and provide additional information to consider in planning and/or mapping stages.

Use of the framework will facilitate the embedding of complexity and identification and awareness of the artificial boundaries placed around leadership in policy documents; such as between the four domains of the GDC Preparing for Practice learning outcomes: clinical, communication, professionalism, management and leadership. Where complexity is artificially over-simplified, or where it is limited by a single definition, model or theory, there is a risk that the achievement of higher quality patient care that was the intended outcome of good leadership will not be achieved. Through enhancing the understanding and education of and around leadership by use of the framework, there is a higher likelihood of the positive outcomes being realised, and the regulator and policy makers succeeding in enhancing patient safety and quality of care.

C.2.4 Business Providers and Corporate Bodies.

This study provides insight into the difference between working in a DBC and an independent practitioner owned dental practice, and may offer an explanation for

some of the issues discussed in the literature relating to the different experiences of associates in different types of practice.

The framework provides context specific information that may be useful therefore to business providers when dealing with staffing or practice business issues, planning workforce performance indicators and/or setting up or reviewing business and employment models. The framework provides insight into the importance of the individual dentist, the risks of anonymity, and the impact of management structures on leadership. The framework could be utilised to underpin development activities for teams and individuals across levels and in all roles in order to enhance business outcomes relevant to various sectors – NHS and private; independently owned and DBCs.

C.3 Suggestions for future research.

This work may be of use to researchers directly through the example of the innovative methodology and analysis, as well as relating to future work possible from the findings and output. Researchers may seek to utilise the novel methods for themselves when researching similar or diverse phenomena, situated within such complex or previously hard to reach settings. Additionally, researchers may note the potential for enhanced theoretical generalisability (see section C.4 below) of the findings into other various areas, and wish to explore the operational (patient care) level of leadership in other healthcare providers.

The nature, quality and relative significance of the reciprocity between the various concepts has not been explored and investigation into this could enable the design of a

theoretical model of leadership for dentists in general dental practice to be expounded from this conceptual framework. Use and operationalisation of the framework in practice and for education is needed, along with evaluation of such interventions, including development of additional resources to be used as 'toolkits' for educators and practitioners.

There is opportunity to develop the work related to DBCs and this may also extend into other pseudo-corporate, non-independent dental practice environments such as the NHS salaried services.

The impact of the physical surgery space on the dentists' well-being and leadership could lead to further exploration around the design of practices. This could explore the relative set-up of the physical space to optimise positive impact on the dentist and their work, including a sense of well-being, or with regard to the computer and its negative impact on communication with the patient for example. There is also opportunity for work to further explore the influence of gender within the profession in a meaningful way with respect to relationships, Communities of Practice and/or individuals.

The important concept of emotional intelligence in dentists may be another avenue for further study. Its role could be explored within or in addition to leadership, and the impact of differing levels and engagement with it, through choice or unavoidable consequence, investigated. Evaluation of educational and development activities to enhance it or measure it may also be an avenue for future research in dentistry and across other healthcare professions.

C.4 Generalisability and impact.

Generalisability is defined as “*an act of reasoning that involves drawing broad conclusions from particular instances*” (Polit & Beck, 2010 p1451). Generalisability in the qualitative paradigm is different to statistical generalisability in the quantitative paradigm where it is linked with external validity. In statistical generalisability a random sample is taken to represent an entire population and results from that sample are extrapolated to the wider population (Polit & Beck, 2010).

Generalisability in the qualitative research paradigm is often related to the ‘transferability’ element of trustworthiness (Lincoln & Guba, 1985; Maxwell & Chmiel, 2014; Smith, 2018). It can be divided into two types: naturalistic and theoretical (Carminati, 2018; Hammersley, 1992; Myers, 2000). While there may be variation in the language used to denote these two patterns they are accepted ways of drawing such broad inferences from particular instances to enable findings to cross boundaries.

Naturalistic generalisability denotes a collaborative enterprise between reader and research where one situation is recognised in another (Myers, 2000) via the “*agentic role of the reader*” (Maxwell & Chmiel, 2014 p2099). Some naturalistic generalisation occurred in the member checking and discussions with dentists and other healthcare professionals of the developing framework as they noted the relevance of the findings and developing framework to their own situation. This may be particularly pertinent for dentists through dissemination of the framework in professional literature and training and development activities.

Theoretical generalisability occurs when abstract concepts emerge from specific findings which are likely to be relevant in other situations. Hammersley also relates to this as “*theoretical inference*” (Hammersley, 1992 p264). Through this study the final framework was created via theoretical generalisability, proposing that the higher level abstracted concepts that emerged from the case specific findings are relevant to all dentists working in primary care general dental practice (Flyvbjerg, 2006). This assertion is supported by strategies proposed to enhance such transferability such as the study being set in an interpretative paradigm; the use of maximum variation sampling; thick description of the data; and the use of deviant and divergent cases to deepen understanding and enable greater degrees of abstraction and conceptualisation (Carminati, 2018; Flyvbjerg, 2006; Hammersley, 1992; Maxwell, 2013; Polit & Beck, 2010).

The higher levels of abstraction and subsequent concepts that emerged from the in-depth findings suggest that there is also a reasonable assertion that it may be relevant to dentists in other healthcare settings, as well as other health care professionals in their various contexts. This theoretical generalisation may be supported, enhanced and tested through dissemination and future work.

Bearing in mind the limits to theoretical generalisability and the need to explore this further, the framework does have potential to be relevant in a variety of contexts. In any patient facing situation the personal and professional identity of the healthcare clinician will be important, as well as how they form relationships with others – including the patient. The framework does not specify what the identity or

relationships should be, just that the concepts are related to leadership. Constantly changing priorities, the articulation work and immaterial labour demands of working in a clinical environment will necessitate anyone working in a clinical capacity to demonstrate capability and flexibility to perform effectively. This concept is the same whether in a leadership or followership role, and in any professional context.

The personal position or context of the individual is a concept that potentially crosses barriers – instead of it being dentist as individual, clinician or business person, it could be nurse, doctor or paramedic. The business person concept may relate to the individual working for a salary or for altruistic reasons and therefore may apply as much in secondary care hospital salaried work as in primary care where money is being charged at the point of delivery of the service. For GPs, this business person context may relate to the business issues encountered in practice meetings relating to staff employment and the running of the practice within a budget. Further exploration of the use of the framework in these contexts could be carried out to investigate and evaluate this if desired.

The Community of Practice concept could relate to any situation where a group of people are working together for a common goal such as a ward, ambulance crew, or a GP practice. Each of these areas will be influenced by the leadership level at which the individual is working, from the grand strategic political level of commissioning care across a population to the individual level of identifying who they are or want to be within the environment in which they work. The direction of the connections between concepts will still be apparent, but the nature of the connections may be different.

When looking at educational approaches these too are able to cross boundaries and are related to the concepts themselves, not specifically limited to the context of dental practice. So the educational approaches discussed in this thesis (including programmatic assessment and reflection and reflective practice) may be just as valid for other healthcare providers as well as a secondary care or other practice environments.

Where the governance or grand strategic level of healthcare is different, perhaps in other cultures or across geographical divides (e.g. Australia and the USA), it is advocated that the concepts may be abstracted to a high enough level to maintain relevance. It is therefore proposed that the Hanks Framework of Dentists Leadership, could be utilised as The Hanks Framework of Clinician Leadership; and further research in other environments and across other boundaries (including geographical, cultural and political) may support this enhanced generalisability. The framework may lend itself to other professional practice such as social care or education (teaching) – and again future investigation may enable this to be explored further.

C.5 Dissemination.

To maximise the breadth of audience for dissemination, targeted outputs for different audiences will be considered across dentists, dental and healthcare educators, healthcare service and education researchers, regulators, policy makers and business providers. Articles will be submitted to qualitative research journals such as The Qualitative Report and Qualitative Research; medical and healthcare educational (Medical Education, Academic Medicine and Advances in Health Science Education)

and specific dental journals including the British Dental Journal. Papers will also be submitted to interprofessional and international dental, medical, and education conferences to support the work in crossing boundaries, including Association of Medical Education in Europe, Association of Dental Education in Europe, International Association of Dental Research, Prato International Clinical Skills Conference and the Ottawa conference.

The work will actively be taken to the General Dental Council through existing networks such as the UK Council for the Dental Teachers of Professionalism to enhance the academic evidence base to support policy. Dialogue will be opened with relevant stakeholders to provide editorials, commentaries and volunteering for national advisory panels in order to complement, shape and lead on future work in this area.

The potential impact of this work is varied and wide ranging, and as such requires a targeted and variable range of outputs and dissemination activities as detailed above. Impact may be seen in local, national and international arenas, and across operational, strategic and potentially grand strategic levels.

C.6 Limitations of the study.

Every framework is a simplified and incomplete model of a more complex reality (Maxwell, 2013). While this framework as a whole provides a tool to understand and make sense of leadership in and for dental practice, it should be borne in mind that it will imply artificial boundaries in the same way that existing frameworks do. Although it embeds complexity, the full level of intricacy will never be able to be fully depicted within it.

Some of the methodological limitations have been explored previously in chapter two, and relate to difficulties in accessing the setting, the potential for the Hawthorne effect, and practical equipment issues. All these potential limitations were consciously mitigated as far as possible, and have been described and explored earlier. Being a dentist allowed access to a setting that may be totally inaccessible to a non-dentist researcher. Purposive sampling practice was deliberately chosen to provide a diverse sample of dentists; however it is possible that using more than seven cases would have supported new and additional areas of interest that would have added to the outcomes. It would have been advantageous to have more than one participant from a DBC, a more diverse ethnic mix in the dentists, and to widen the geographic boundaries of the study. All dentist participants in the study were UK trained, all white English and the study was only conducted in the South West of England. Although practices were chosen in city centre and rural locations, there may be geographical variation in different parts of the country and/or different cities and further work in other areas would expand and add depth to the findings.

All research is necessarily time and resource limited and in this case as part of a PhD, and data collection had to be optimised in line with such constraints. It is proposed that additional data could be explored later and evaluated against the framework with which to refine and develop it. This is something which is possible through future work. The richness of the data and the subsequent level of the findings do, however, minimise these risks as the final concepts are all higher order processes that could apply equally across the breadth of possible demographics and will embed some of that variance within them.

Whilst I remained reflexive to my impact on the data collected and the later analysis, through my being a dentist and having worked in practice for over 25 years as well as having an enhanced knowledge of and about leadership through this study, I will have undoubtedly influenced every stage of the process in multiple ways (Finlay, 2002). Through using critical subjectivity as described in the methodology (Watt, 2007) I was careful to be aware of my influence at all times, and not force my opinions and thoughts into the data or participants. I was vigilant not to ask leading questions during VRE and observation sessions, and to ensure that the participant voice was heard, to support the overall multivoicedness and co-construction of the outcomes to be realised. I collaborated with the research team as findings were emerging and undertook member checking with dentist colleagues as well as the participants at different stages in the research process. I was aware when I did not agree with one of the participants' ways of working, or their later thoughts on it; and used this to expand and deepen the data analysis rather than confirm or refute existing ideas (Maxwell, 2013). However, because I edited the initial recordings to produce the VRE films, my influence on that led to inclusion or exclusions that others may have perceived differently. I again used critical subjectivity to optimise the impact, through theoretical sampling of the entire data to maximise heterogeneity and inclusion of specific and diverse events relating to more than merely the clinical treatment being carried out. Researchers shape research in every paradigm³⁹ and through the use of reflexivity

³⁹ <http://www.qualres.org/HomeRefl-3703.html> "The perspective or position of the researcher shapes all research - quantitative, qualitative, even laboratory science"

within this study, the implications are more explicit and any implicit or unconscious shaping of the outcomes or process realised (Finlay, 2002; Watt, 2007).

There is a risk in qualitative research that provides an evidence base from lived rather than theoretical ideology that it will not be seen as 'common sense' to those it may impact (Billig, 1988) and therefore not accepted. Nevertheless, in conversations with dentists about the final framework, it does seem to 'fit' with their experiences of being a dentist in a variety of situations. Additionally, at an interprofessional educational event, a senior nurse leadership educator suggested that it resonated clearly with her and nursing situations. Through the use of robust and transparent study design and process, member checking strategies throughout and the proposal that the final framework might add to and complement rather than refute and denigrate existing discourse, it is hoped that this potential limitation will be minimised.

C.7 Conclusions.

This study acknowledges the dental profession's call for leadership education in dental training to improve patient care and safety. To educate effectively for leadership, authentic learning outcomes are required and their meaning and the construct of leadership fully understood. The literature was missing empirical studies at the operational level of leadership, and this study has responded to fill that gap.

Use of the innovative blended methodology optimised learning and the co-construction of knowledge from the zones of maximum complexity in VRE and proximal development in Activity Theory. The rich, in-depth data interpreted within constructivist and interpretive paradigms enabled high levels of abstraction and

conceptualisation to discover metacognitive and higher-order overarching and cross cutting propositions. These propositions informed the central concepts of the Hanks Framework of dentists' leadership, developed from a bottom up context sensitive approach. Findings also highlighted several areas of challenge for dentists in their leadership activities, including the need for high levels of emotional intelligence to underpin performance. Differences between the roles of principal and associate, and challenges of working within a DBC or independent practice were identified and ideas to resolve them proposed. The challenge of internal conflict between the various personal positions of the dental practitioner – as individual, as clinician and as business person along with the importance of Professional Identity Formation and managing stress were addressed. The dentist-nurse relationship was identified as key and challenges to the development and maintenance of this discussed.

The framework aligns with contemporary concepts and approaches to leadership, while not being limited to or constrained by a single theory, model or definition. It emphasises the oversimplification of outdated approaches to enable further development and enhancement of existing governance and regulatory publications, through clarifying contextual relevance and/or refining or adding to behavioural competence based outcomes. The framework also provides opportunity to develop new learning outcomes, curricula and training guidance that embraces the complexity of leadership. The framework can be used across all leadership levels, and by various groups of stakeholders to facilitate understanding and advancement of the profession.

This study has filled a gap in the dental literature with the potential for theoretical generalisability to other healthcare settings and across professions. Both the methods and framework itself may provide successful means of conducting future research as well as supporting context sensitive ongoing policy, regulatory and educational practice in leadership. Dentists themselves may benefit directly from its use as they are given the chance to identify and recognise areas of their own individual or collective practices that need development, or are successful.

This study and the newly developed Hanks Framework of Dentists' Leadership has provided an early step from which to advance understanding of the role and remit of leadership in clinical practice. This will then underpin the anticipated, subsequent improvement in patient care and safety, which is the ultimate goal.

APPENDIX 1A Studies included in review process						
Study number	Author	Year	Citation/ source	Title	Type of study	CASP/Cochrane RoB quality rating & overall rating
1.	Darzi	2008	Department of Health	High Quality Clinical Care For All	Gov't report	n/a
2.	NHS	2009	NHS Leadership Academy	Medical Leadership Competency Framework (MLCF)	Policy framework	n/a
3.	GMC	2009	General Medical Council	Tomorrow's Doctors	Regulatory framework	n/a
4.	Giordano	2010	King's Fund	Leadership needs of medical directors and clinical directors	Policy report	n/a
5.	Hardacre Cragg Shapiro Spurgeon Flanagan	January 2011	The Health Foundation	What's Leadership got to do with it?	Policy report	n/a
6.	King's Fund	2011	The King's Fund	The future of leadership and management in the NHS: no more heroes	Policy report	n/a
7.	Nicolson Rowland Lokman	April 2011	National Institute for Health Research	Leadership and Better Patient Care: Managing in the NHS	Policy report	n/a

Appendix 1A Studies included in review process

	Fox Gabriel Heffernan Howorth Ilan-Clarke Smith					
8.	Alimo-Metcalfe	2012	The King's Fund	Leadership and engagement for improvement in the NHS: Together we can	Policy report	n/a
9.	NHS	2012	NHS Leadership Academy	Clinical Leadership Competency Framework	Policy framework	n/a
10.	GMC	2012	GMC	Leadership and management for all doctors	Regulatory learning outcomes	n/a
11.	Francis	February 2013	The Stationery Office	Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry	Gov't report	n/a
12.	Storey Holti	June 2013	The Open University Business School	Towards a new model of leadership for the NHS	Policy report	n/a
13.	King's Fund	2013	The King's Fund	Patient-centred leadership: Rediscovering our purpose	Policy report	n/a
14.	NHS	2013	NHS Leadership Academy	Healthcare Leadership Model v1.0	Policy framework	n/a
15.	West Eckert Steward Pasmore	May 2014	The King's Fund CCL [®]	Developing collective leadership for health care	Policy report	n/a

Appendix 1A Studies included in review process

16.	King's Fund	May 2014	The King's Fund	Culture and leadership in the NHS: The King's Fund 2014 survey	Policy report	n/a
17.	West Armit Loewenthal Eckert West Lee	2015	Faculty of Medical Leadership and Management (FMLM)	Leadership and Leadership Development in Health Care: The Evidence Base	Policy report (& literature review)	1.y 2.y 3.ct 4.ct 5.y 7.ct 8.ct 9.ct 10.ct 3 LOW
18.	GMC	2015	GMC	Outcomes for Graduates	Regulatory outcomes	n/a
19.	Sarah Massie	2015	The King's Fund	Talent management. Developing leadership not just leaders	Policy report	n/a
20.	FMLM	2016	Faculty of Medical Leadership and Management (FMLM)	Leadership and management Standards for Medical Professionals. 2 nd Edition	Policy standards framework	n/a
21.	NHS	December 2016	NHS Improvement	Developing People – Improving Care A national framework for action on improvement and leadership development in NHS-funded services	Policy report	n/a
22.	Michael West Regina Eckert Ben Collins Rachna Chowla	May 2017	The King's Fund	Caring to change. How compassionate leadership can stimulate innovation in health care	Policy report	1.y 2.y 3.ct 4.ct

						5.y 7.ct 8.ct 9.ct 10.ct 3 LOW
23.	Robin Martin Yves Guillaume Geoff Thomas Allan Lee Olga Epitropaki	2016	Personnel Psychology 69(1): 67-121	Leader–member exchange (LMX) and performance: A meta-analytic review	Meta analysis	1 y 2 y 3 y 4 y 5 y 7 precise 8 ct 9 y 10 ct 6 MEDIUM
24.	Khalid I. Khoshhal, Salman Y. Guraya	2016	Saudi Medical Journal 37 (10): 1061 - 1067	Leaders produce leaders and managers produce followers A systematic review of the desired competencies and standard settings for physicians' leadership	Systematic review	1 n 2 ct Not worth continuing? 0 LOW
25.	Olga Epitropaki Ronit Kark Charalampos	2017	The Leadership Quarterly 28 (1) 104-129	Leadership and followership identity processes: A multilevel review	Multi level review	1 y 2 ct 3 ct 4 ct

Appendix 1A Studies included in review process

	Mainemelis c Robert G. Lord					5 y 7 ct 8 y 9 ct 10 y 4 MEDIUM
26.	Naomi Elliott Cecily Begley Greg Sheaf Agnes Higgins	2016	International Journal of Nursing Studies 60: 24–45	Barriers and enablers to advanced practitioners’ ability to enact their leadership role: A scoping review	Scoping review	1 y 2 y 3 y 4 y 5 y 7 y 8 n 9 y 10 y 8 HIGH
27.	Margo L. Brewer Helen Louise Flavell Franziska Trede Megan Smith	2016	Journal of Interprofessional Care 30(4): 408-415	A scoping review to understand “leadership” in interprofessional education and practice	Scoping review	1 y 2 y 3 y 4 n 5 n/a 7 y 8 y 9 y 10 y 7 HIGH

Appendix 1A Studies included in review process

28.	Sims, Sarah Hewitt, Gillian Harris, Ruth	2015	Journal of Interprofessional Care 29(3): 209–215	Evidence of a shared purpose, critical reflection, innovation and leadership in interprofessional healthcare teams: a realist synthesis	Realist review	1 y 2 ct 3 y 4 ct 5 y 7 y 8 y 9 y 10 ct 6 MEDIUM
29.	Paquita C de Zulueta	2015	Journal of Healthcare Leadership 8: 1–10	Developing compassionate leadership in health care: an integrative review	Integrative review	1 n 2 ct 3 ct 4 ct 5 ct 7ct 8 y 9 ct 10 y 2 LOW
30.	Angela Brown, Patrick Crookes Jan Dewing	2015	Contemporary Nurse, 51(1):39-55	Clinical leadership in pre-registration nursing programmes—An international literature review	Literature review	1y 2 ct 3 ct 4 n 5 ct 6 need more evidence

						7 not 8 ct 9 ct 10 y 2 LOW
31.	Abdu Ja'afaru Bambale	2014	Journal of Marketing and Management 5 (1): 1-16	Relationship between Servant Leadership and Organizational Citizenship Behaviors: Review of Literature and Future Research Directions	Systematic review	1 n 2 n 3 n 4 n 5 n 7 not 8 ct 9 ct 10 ct 0 LOW
32.	Anne Lise Holm Elisabeth Severinsson	2014	Journal of Nursing Management 22: 211-224	Effective nursing leadership of older persons in the community - a systematic review	Systematic review	1 y 2 y 3 y 4 y 5 y 7 y 8 y 9 y 10 y 9 HIGH

Appendix 1A Studies included in review process

33.	Brown, A. E. Rosenman, E. D. Shandro, J. R. Ilgen, J. S. Harper, A. L. Fernandez, R.	2014	Academic Emergency Medicine 21 5 SUPPL. 1 S197-S198	Team leadership in emergency medicine: A systematic review	Systematic review	1 y 2 ct 3 ct 4 ct 5 ct 7 ct 8 n 9 ct 10 ct 1 LOW
34.	Carol A. Wong Greta G. Cummings Lisa Ducharme	2013	Journal of Nursing Management 21: 709–724	The relationship between nursing leadership and patient outcomes: A systematic review update	Systematic review	1 y 2 y 3 y 4 y 5 y 7 very 8 y 9 y 10 y 9 HIGH

Appendix 1A Studies included in review process

35.	Denise Linda Parris Jon Welty Peachey	2013	J Bus Ethics 113: 377–393	A systematic literature review of servant leadership theory in organizational contexts	Systematic review	1 y 2 y 3 y 4 y 5 y 7 y 8 y 9 y 10 y 9 HIGH
36.	Mannix, Judy Wilkes, Lesley Daly, John	2013	Contemporary Nurse 45(1): 10–21	Attributes of clinical leadership in contemporary nursing: An integrative review	Integrative review	1 y 2 y 3 y 4 y 5 y 7 ct 8 y 9 ct 10 y 6 MEDIUM
37.	John Hurley Marie Hutchinson	2013	Contemporary Nurse, 43(2): 178-182	Setting a course: A critical review of the literature on nurse leadership in Australia	Systematic review	1 y 2 ct 3 n 4 n 5 ct 7 n 8 ct

						9 n 10 ct 1 LOW
38.	Haver, Annie Akerjordet, Kristin Furunes, Trude	2013	Journal of Leadership & Organizational Studies 20(3): 287–303	Emotion regulation and its implications for leadership: An integrative review and future research agenda	Integrative review	1 y 2 y 3 y 4 ct 5 y 7 ct 8 y 9 y 10 y 7 HIGH
39.	Sharon Clarke	2013	Journal of Occupational and Organizational Psychology 86: 22–49	Safety leadership: A meta-analytic review of transformational and transactional leadership styles as antecedents of safety behaviours	Meta analysis	1 y 2 y 3 y 4 y 5 y 7 y 8 y 9 y 10 y 9 HIGH

Appendix 1A Studies included in review process

40.	Denti, Leif Hemlin, Sven	2012	International Journal of Innovation Management 16 (3): 1-20	Leadership And Innovation In Organizations: A Systematic Review Of Factors That Mediate Or Moderate The Relationship	Systematic review	1 y 2 n 3 n 4 y 5 y 7 n 8 y 9 ct 10 y 5 MEDIUM
41.	Bish, Melanie Kenny, Amanda Nay, Rhonda	2012	Journal of Nursing Scholarship 44(4):411–417	A scoping review identifying contemporary issues in rural nursing leadership	Scoping review	1 y 2 y 3 y 4 y 5 y 7 y 8 y 9 y 10 y 9 HIGH
42.	Cowden, Tracy Cummings, Greta Profetto- McGrath, Joanne	2011	Journal of Nursing Management 19: 461–477	Leadership practices and staff nurses intent to stay: a systematic review	Systematic review	1 y 2 y 3 y 4 y 5 y 7 y 8 y

						9 y 10 y 9 HIGH
43.	Richardson, A. Storr, J.	2010	International Nursing Review 57: 12–21	Patient safety: A literature review on the impact of nursing empowerment, leadership and collaboration	Literature review	1 n 2 y 3 ct 4 y 5 y 7 n 8 y 9 n 10 n 4 MEDIUM
44.	Barbara Kunzle Michaela Kolbe Gudela Grote	2010	Safety Science 48:1-17	Ensuring patient safety through effective leadership behaviour: A literature review	Literature review	1 y 2 y 3 y 4 ct 5 y 7 n 8 y 9 ct 10 y 6 MEDIUM
45.	Jeon, Y. H. Merlyn, T.	2010	Australasian Journal on Ageing 29 (2): 54–60	Leadership and management in the aged care sector: A narrative synthesis	Narrative review	1 y 2 y

Appendix 1A Studies included in review process

	Chenoweth, L.					3 y 4 y 5 ct 7 ct 8 n (9 y 10 y 6 MEDIUM
46.	Germain, Pamela Brady Cummings, Greta G.	2010	Journal of Nursing Management 18: 425–439	The influence of nursing leadership on nurse performance: a systematic literature review	Systematic review	1 y 2 y 3 y 4 y 5 y 7 y 8 y 9 y 10 y 9 HIGH
47.	Cummings, Greta G. MacGregor, Tara Davey, Mandy Lee, How Wong, Carol A. Lo, Eliza Muise, Melanie Stafford, Erin	2010	International Journal of Nursing Studies 47: 363– 385	Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review	Systematic review	1 y 2 y 3 y 4 y 5 y 7 y 8 n (y if they're nurses) 9 y

						10 y 8 HIGH
48.	Akerjordet, Kristin Severinsson, Elisabeth	2010	Journal of Nursing Management 18: 363–382	The state of the science of emotional intelligence related to nursing leadership: An integrative review	Integrative review	1 y 2 y 3 y 4 y 5 y 7 y 8 y 9 ct 10 y 8 HIGH
49.	Kuoppala, Jaana Lamminpää, Anne Liira, Juha Vainio, Harri	2008	Journal of Occupational & Environmental Medicine 50(8):904-915	Leadership, job well-being, and health effects—A systematic review and a meta-analysis	Meta analysis	1 ct 2 y 3 ct 4 y 5 y 7 y 8 y 9 ct 10 y 6 MEDIUM
50.	Helen Dickinson, Chris Ham	2008	Health Services Management Centre University of Birmingham	Engaging doctors in leadership : review of the literature	Literature review	1 y 2 y 3 n

			part of the “Enhancing Engagement in Medical Leadership” project commissioned by the NHS Institute for Innovation and Improvement.			4 n 5 ct 7 n 8 y 9 ct 10 y 4 MEDIUM
51.	Greta Cummings, How Lee, Tara MacGregor, Mandy Davey, Carol Wong, Linda Paul, Erin Stafford	2008	Journal of Health Services Research & Policy 13(4): 240–248	Factors contributing to nursing leadership: a systematic review	Systematic review	1 y 2 y 3 y 4 y 5 y 7 ct 8 ct 9 ct 10 ct 5 MEDIUM
52.	Akerjordet, Kristin Severinsson, Elisabeth	2008	Journal of Nursing Management 16: 565–577	Emotionally intelligent nurse leadership: A literature review study	Literature review	1 y 2 y 3 y 4 y 5 y 7 y 8 y 9 y 10 y

Appendix 1A Studies included in review process

						10 HIGH
53.	Pearson, Alan Laschinger, Heather Porritt, Kylie Jordan, Zoe Tucker, Donna Long, Leslye	2008	Journal Advanced Nursing 62(6): 653–654	Comprehensive systematic review of evidence on developing and sustaining nursing leadership that fosters a healthy work environment in healthcare	Systematic review	1 y 2 y 3 y 4 y 5 y 7 y 8 y 9 y 10 y 10 HIGH
54.	Gilmartin, Mattia J. D'Aunno, Thomas	2007	Leadership Research in Healthcare, The Academy of Management Annals, 1(1): 387-438	Leadership research in healthcare A review and roadmap	Literature review	1 ct 2 y 3 y 4 n 5 n 7 ct 8 n 9 ct 10 y 3 LOW
55.	Alilyyania, B Wong, C Cummings, G	2018	International Journal of Nursing Studies 83: 34–64	Antecedents, mediators, and outcomes of authentic leadership in healthcare: A systematic review	Systematic review	1 y 2 y 3 y 4 y

Appendix 1A Studies included in review process

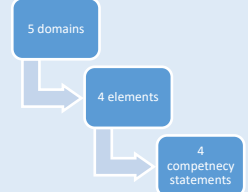
						5 y 7 y 8 y 9 y 10 y 10 HIGH
56.	Hill, Harry Brocklehurst, Paul	2015	Journal of Healthcare Leadership 7: 13-20	leadership in dentistry: findings from new tool to measure clinical leadership	Mixed methods	RoB (2Y 2N 1 CT) MEDIUM
57.	Sharma, Seema	2010	Dental Nursing 6(9): 513- 515	Leadership and management: Get organized, get started	Non systematic review	RoB 5 (5Y) LOW
58.	Moore, D Saleem , S Hawthorn, E	2015	British Dental Journal 219 (6): 255-259	Healthy gums do matter: A case study of clinical leadership within primary dental care	Qualitative	CASP 8 HIGH
59.	Paul Brocklehurst M Nomura T Ozaki J Ferguson R Matsuda	2013	British Dental Journal 215: E19	Cultural Differences in clinical leadership: a qualitative study comparing the attitudes of general dental practitioners from Greater Manchester and Tokyo	Qualitative	CASP 7 HIGH
60.	Morison, S McMullan, C	2013	British Dental Journal 214: E2	Preparing for the future: challenges and opportunities for management and leadership skills	Qualitative	CASP 0 LOW
61.	Fowler, John	2013	Dental Nursing 9 (4): 228- 229	Advancing practice in dental nursing. Part 5: leadership	Non systematic review	RoB 5 (5Y) LOW

Appendix 1A Studies included in review process

62.	Peate, Ian	2011	Dental Nursing 7(9): 523-527	Developing leadership and management skills	Non systematic review	RoB (2Y 2N 1CT) LOW
63.	Brocklehurst, P Ferguson, J Taylor, N Tickle, M	2013	British Dental Journal 214(5): 243-246	What is clinical leadership and why might it be important in dentistry?	Non systematic review	RoB (2Y 1N 2CT) LOW
64.	Brocklehurst, P O'Malley, L Hill, H Ozaki, T Nomura, M Matsuda, R	2014	British Dental Journal 217: E17	The development and piloting of a leadership questionnaire for general dental practitioners: preliminary results from the North West of England and Tokyo	Mixed methods	RoB (2Y 3N) MEDIUM
65.	Brennan, M	2008	Dental Nursing 4(11): 648-651	Taking the lead: a practical guide to leadership	Non systematic review	RoB (5Y) LOW
66.	Cameron, S Harbison, J Lambert, V Dickson, C	2012	Journal of Advanced nursing 68(7): 1469-1481	Exploring leadership in community nursing teams	Qualitative	CASP 6 MEDIUM
67.	Willcocks, S Milne, P Milne, H	2013	British Journal of Healthcare Management 19(4): 178-185	Implementing the MLCF in general practice: implications for development?	Qualitative	CASP 10 HIGH
68.	O'Riordan, C McDermott, A	2012	Journal of Health Organization and Management 26(5): 621-640	Clinical managers in the primary care sector: do the benefits stack up?	Qualitative	CASP 0 LOW
69.	Garrubba, M Harris, C Melder, A	2011	Monash Health Evidence Reviews, 2011 Centre for Clinical Effectiveness,	Clinical Leadership. A literature review to investigate concepts roles and	Systematic review	CASP 6 MEDIUM

Appendix 1A Studies included in review process

			Southern Health, Melbourne, Australia	relationships related to clinical leadership		
70.	Walsh, J Taylor, N Hough, D Brocklehurst, P	2015	Leadership in Health Services 28(3):185-99	A qualitative evaluation of a pilot leadership programme for dentists	Qualitative	CASP 7 HIGH
71.	Swanwick, T McKimm, J	2011	The Clinical Teacher 8: 22- 26	What is clinical leadershipand why is it important?	Systematic review	CASP 0 LOW
72.	Tuononen, T Suominen, AL Lammimtakanen, J	2016	BMC Oral Health 16:50	Factor's associated with staying or leaving a dentist leader's position - a qualitative study	Qualitative	CASP 7 HIGH
73.	Chilcutt, A S	2009	JADA 140:1252-1258	Exploring leadership and team communication within the organisational environment of a dental practice	Qualitative	CASP 8 HIGH

APPENDIX 1B Data Extraction Table						
Study number	Type of study	Definition of leadership	Aim/role of leadership	Conceptualisation of leadership	Organisational/ leadership level	Explicit links to theories/ models of leadership
1	Gov't report	None	Leadership for quality To create high quality workplaces through development of culture/environment Makes change happen	clinician as practitioner, partner and leader	All	Kaiser Permanente ⁴⁰
2	Policy framework	None	Actively supports effective teamwork	As a competency framework  Shared/ distributed leadership Leadership not leader Clinician as practitioner, partner and leader	Individual Undergrad Postgrad Continuing Practice	Kaiser Permanente
3	Regulatory framework	None	To work with others to change systems when	As a competency framework	Individual	Kaiser Permanente

⁴⁰ Kaiser Permanente Institute for Health Policy (US) <https://www.kpihp.org/>

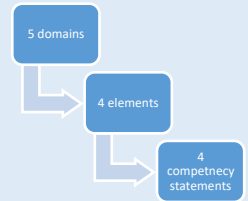
Appendix 1B Data extraction table

			necessary for the benefit of patients, commit to improving healthcare	Relational Leadership and followership clinician as practitioner, partner and leader 3 overarching outcomes, 9 domains		
4	Policy report	None	For maintaining quality of care, patient safety and patient experience Design oversee and improve innovative systems of clinical care	Clinician as leader	Individual Organisational (Strategic)	None
5	Policy report	None	Manage uncertainty Nurture & foster culture of innovation & team work Manage implementation of cultural & behavioural change and QI	Leadership is about how leadership is done rather than what the leader does Relational: emphasis on others being at least equal if not greater than individual leader	All	Engaging/inclusive leadership (Alimo-Metcalfe 2009)
6	Policy report	the art of motivating a group of people to achieve a common goal.	To meet quality and financial challenges	Shared/distributed leadership crossing boundaries (clinician &	System (grand strategic) Organisational (strategic)	Engaging/ post – heroic (Alimo-Metcalfe 2009)

Appendix 1B Data extraction table

			Set vision & engage staff, sustain leadership, manage transitions & leadership succession Promote culture of teamwork, continuous improvement & engagement	manager working together/ 'from ward to board') Followership Difference between management ("getting the job done") and administration – need all integrated		Shared/Distributed (West 2014 Kings Fund)
7	Policy report	As a process occurring within a group, organisation or collectivity that imagines, wills and drives change	To imagine, will and drive change	A process occurring within a group Leadership not leader Relational NHS trust as 'open system' – leadership crossing boundaries	Individual	Distributed (West 2014 Kings Fund) Emotional and social intelligence (Goleman)
8	Policy report	None	To improve population health and patient care Create culture of engagement (pts and staff) To break down barriers & work across systems	Leadership not leader Crossing boundaries	All	Distributed/shared (West 2014 Kings Fund/ NHS 2009) Engaging (Alimo-Metcalfe 2009)

Appendix 1B Data extraction table

9	Policy framework	None	To make change happen For delivery of excellence and improved patient outcomes	As a competency framework Group achievement rather than individual 	Individual	Shared L (NHS 2009) 2009 F [no.2]
10	Regulatory learning outcomes	None	Helping to develop & improve services	As a competency framework Responsibilities relating to employment issues. Teaching & training. Planning, using & managing resources. Raising & acting on concerns.	Individual	None stated
11	Gov't report	None	To overcome identified deficiencies	Relational	All	Distributed leadership crossing boundaries (West 2014 Kings Fund)
12	Policy report	Can be seen as a process which involves finding temporary resolutions between opposing principles, meeting the	To encourage high staff involvement and engagement. To provide and operate meaningful designs for	As a process which involves finding temporary resolutions between opposing principles, meeting the	Organisation (strategic)	Engaging leadership (Alimo-Metcalfe 2009)

Appendix 1B Data extraction table

		<p>need to mobilise human motivation, whilst also regulating it and making it dependable and predictable.</p>	<p>organisations, sub-units and individual jobs which are underpinned by HRM systems that provide relevant staff development and reward.</p> <p>To focus on improvement and continual learning</p>	<p>need to mobilise human motivation, whilst also regulating it and making it dependable and predictable.</p> <p>Allows autonomy within a framework of values and goals focussed on meeting user needs.</p> <p>Servant/distributed/follower/ship/inclusive/authentic – noting the ‘dark side’ of traits and the doubt free charismatic/transformational</p>		
13	Policy report	None	<p>Aims for each level</p> <p>National (grand strategic): create conditions to consistently deliver high standard of care; set clear goals and standards to improve quality & patient safety; provide</p>	<p>Clinician as leader working together with manager/ward to board/ crossing systems & boundaries (within and outside NHS)</p> <p>HC organisations as complex adaptive systems</p>	All	Shared, collaborative, distributed, (West 2014 Kings Fund)

Appendix 1B Data extraction table

			<p>means or staff to deliver those goals within available resources</p> <p>Organisation (strategic): give sufficient priority to patient care and safety</p> <p>Operational (team): value and support staff, enable them to work as team, ensure main focus is patient care, create time to care, establish well-structured teams</p>			
14	Policy framework	None	None	<p>As a competency framework</p> <p>Relational (to self, behaviour, relating to others)</p> <p>Individual qualities required</p> <p>9 dimensions of behaviours relate to 4 point scale (essential,</p>	Individual	None

Appendix 1B Data extraction table

				proficient, strong, exemplary)		
15	Policy report	None	<p>To deliver safe, high quality, compassionate care within budget</p> <p>To deliver health and care across local systems</p> <p>To nurture culture of continuous improvement & learning – dialogue debate and discussion</p>	<p>Collective – every interaction by everyone at every level shapes emerging culture</p> <p>Everyone takes responsibility for success of organisation as a whole not just their individual role. Performed in all roles and levels of responsibility.</p> <p>Behaviours needed but HOW done not if done</p> <p>Shared power, responsibility and accountability</p>	<p>Organisation (strategic)</p> <p>Operational (team)</p>	None specific
16	Policy report	None	To prioritise quality care; develop compassionate care; demonstrate compassionate characteristics throughout organisation	Not specified	Organisation (strategic)	Collective leadership (West 2014 Kings Fund)

Appendix 1B Data extraction table

			(openness, honesty, challenge); support and act swiftly and effectively on raised concerns; provide consistent message from board to rest of organisation.			
17	Policy report (& literature review)	None	To shape culture for continuous improvement; high quality, safe, compassionate care; staff outcomes (financial, staff performance, turnover, wellbeing, engagement, absenteeism); meet healthcare needs of population they serve	As the most influential factor in creating organisational culture Tasks specific to organisational level	All	Transformational (Bass 1990) Authentic (George 2003) Collective leadership (West 2014 Kings Fund)
18	Regulatory outcomes	None	For improvement and team working	As a competency framework	Individual	None
19	Policy report	None	To manage talent	As a process	Organisation (strategic)	Collective leadership (West 2014 Kings Fund)

Appendix 1B Data extraction table

20	Policy standards framework	None	Unknown	None specified	Individual	None
21	Policy report	None	To deliver systems level skills, improvement skills, compassionate and inclusive leadership, and talent management to create just learning cultures where improvement methods can engage colleagues, patients and carers, deliver cumulative performance improvements, and make health and care organisations great places to work.	As a competency framework Relational Distributed	Organisation (strategic)	Compassionate (West 2017 Kings Fund) Inclusive (Alimo-Metcalfe 2009)
22	Policy report	None	As an enabler of innovation in health care at various levels	None specified	Organisation (strategic)	Compassionate leadership (West 2017 Kings Fund)
23	Meta analysis	None	Not specified	Positive LMX relationships create more positive work behaviour performance	Not specified	LMX theory (Dansereau, Graen & Haga 1975) Social exchange & self-determination theory

Appendix 1B Data extraction table

						(social psychology 1950-60s)
24	Systematic review	None	Not specified	Need special leadership skills Clinicians have these so clinicians make good leaders	Not specified	none
25	Multi level review	None	Not specified	Bipolar construct: Leaders and followers Dynamic construct Linked to organisational levels Context dependant	Not specified	Self-concept and self-schema (identity formation) (from cognitive psychology: Maslow and Rogers)
26	Scoping review	None	Not specified	Linked to organisational level Has barriers and facilitators Can be learned	All	none
27	Scoping review	None	Not specified	Moving from positivistic, individualistic, hierarchical to postmodern, social constructivist, collaborative/collective, mutual power & reciprocal influence, process, situational	Not specified	none

Appendix 1B Data extraction table

28	Realist review	None	<p>Teams have a clearly identified leader who sets the tone or culture of the team. The leader engages and motivates the team, ensures that communication is free flowing, and ensures that all members are able to participate in the team and feel supported. Through this they elicit commitment to the team and its objectives. The leader provides a safe climate for constructive disagreement and ensures conflicts are resolved. They provide feedback on team performance and encourage reflection, openness and a learning culture</p>	<p>Bi polar construct: leader vs leadership</p> <p>Individual important and has clear positive leadership qualities</p> <p>Creating culture</p>	Not specified	none
29	Integrative review	None	<p>Clear articulation of core values and vision, to resonate through all self-organising groups, support, engage and</p>	<p>Shift from individualistic to adaptive, shared and distributed & relational approaches.</p>	<p>Not specified – organisation redefined as an eco system not a machine</p>	<p>Compassionate leadership (as found in Caring to Change 2017 Kings Fund *reviewed by the author of this paper)</p>

Appendix 1B Data extraction table

			enable staff and pts. Leadership for and with compassion.	Specific qualities required Needs EI Different to emotional empathy		Servant leadership (Greenleaf 1970) Self-determination theory (Deci & Ryan psychology related to motivation theory)
30	Literature review	None	To make a difference to the care delivery process	Integrates management and leadership Experience in clinical practice important for clinical leadership	Not specified	none
31	Systematic review	None	Not specified	Dynamic relational process with moderating, mediating and influencing variables SL positively effects OWB	Not specified	Servant leadership (Greenleaf 1970) Organisational Citizenship Behaviour (OCB) & Counterproductive Work Behaviour (CWB)
32	Systematic review	None	Not specified	Relational Needs specific organisational and relational qualities/skills/educational level	Not specified	Transformational (Bass 1990)

Appendix 1B Data extraction table

33	Systematic review	None	Not specified	Not specified	Not specified	None
34	Systematic review	The process through which an individual attempts to intentionally influence another individual or a group in order to accomplish a goal	Not specified	Formal role with supervision duties	Operational	Relational (from Bass 1990) Transformational (Bass 1990), authentic (George 2003) resonant & LMX (Dansereau, Graen & Haga 1975) Transactional (Burns 1978)
35	Systematic review	Is a skill used to influence followers in an organization to work enthusiastically towards goals specifically identified for the common good	To build a legacy of success in an organisation or system	Relational <i>"the most important part... is the people in it"</i> To guide (<i>"success depends on effective and efficient guidance of the leaders"</i>)	Individual & organisational (strategic)	Servant leadership (Greenleaf 1970)
36	Integrative review	None	Ensuring quality care and healthy workplaces	Link to clinician/clinical practice	Not specified	None
37	Systematic review	None	Not specified	Management vs leadership Link to clinician/clinical practice	All levels	Congruent leadership (Stanley 2006)

Appendix 1B Data extraction table

38	Integrative review	None	Not specified	Needs emotional regulation (ER) & therefore EI Differs across context and culture & between roles	Not specified	Emotional Regulation (Gross 1998) and Emotional Intelligence (Goleman 1998)
39	Meta analysis	None	As antecedent of safety behaviours	Need elements of transformational and transactional	Not specified	Transformational (Bass 1990) Transactional (Burns 1978) Social exchange theory Affective identification Cognitive identification
40	Systematic review	None	Not specified	As facilitator (bottom up process and as manager (top down process) Related to organisational level	All levels	None
41	Scoping review	None	Not specified	Related to specific role	Not specified	None
42	Systematic review	None	Not specified	Relational	Not specified	Transformational (Bass 1990) and participative theories
43	Literature review	The ability to influence others and engage them as partners in the	For patient safety	Relational	Not specified	Empowerment Kanter (organizational power dynamics)

Appendix 1B Data extraction table

		development and achievement of shared visions				Participative theories
44	Literature review	None	Team performance: (1) to help the team to complete a task and (2) to keep team members maintained and functioning	Fluid social interactive process Context dependant - adaptive (who, how, what, where) Personal skills/qualities required Bi polar: effective vs ineffective leadership Has barriers and facilitators Context relevant training essential	Operational/team	Shared leadership (West 2014 Kings Fund)
45	Narrative review	None	To create culture	Relational –support and empowerment Training required	Organisational (strategic)	None
46	Systematic review	None	Influence teams to meet organisational goals Influence positive employee performance	Relational Specific qualities required	Not specified	Inclusive leadership (Alimo Metcalfe 2009) Participative decision making (Hershey & Blanchard 1969) Kouze & Posner model

Appendix 1B Data extraction table

47	Systematic review	A process whereby an individual influences a group of individuals to achieve a common goal	Not specified	Need combination of relational and task focussed	Not specified	Transformational (Bass 1990) Transactional (Burns 1978)
48	Integrative review	None	Not specified	Needs EI	Not specified	EI as expression of transformational (Bass 1990, Goleman 1998)
49	Meta analysis	None	To influence well being at work	Not specified	Not specified	None specified
50	Literature review	Multiple definitions of medical L in uncritical discussion: agree it is a SOCIAL PROCESS (not just virtue of position within org)	To influence change	Influence as important as formal authority Context dependant (leadership insufficient in itself) Followership as important a leadership (social process)	Not specified – need alignment	Distributed leadership (West 2014 Kings Fund) Followership theories
51	Systematic review	A process whereby an individual influences a group of individuals to achieve a common goal	Guidance in solving complex problems related to nursing care Create structure Implement care processes Facilitate positive outcomes	Is a process Entails influence Relational Needs individual traits/characteristics Context dependant Development activities required	Not specified	Transformational (Bass 1990) EI (Goleman 1998)

Appendix 1B Data extraction table

52	Literature review	None	To foster healthy work environment & create inspiring relationships based on mutual trust	Relational Followership as important a leadership Need EI	All levels	Transformational I linked with EI (Bass 1990, Goleman 1998)
53	Systematic review	None	Not specified	Adaptive (style, context, characteristics,) Followership required – is a social process	Not specified	Transformational (Bass 1990) Transactional (Burns 1978) Consultative Participatory theories Instrumental
54	Literature review	None	Not specified	Context dependant Relational Needs to cross boundaries	Not specified	Transformational (Bass 1990) Transactional (Burns 1978) Situational theories
55	Systematic review	A process that draws from both positive psychological capacities & highly developed organisational context, which results in both greater self-awareness and self-regulated positive behaviours on the part of leaders and associates, fostering	To help people find meaning at work & promote positive staff and patient outcomes. Facilitate higher quality relationships which in turn lead to active engagement of employees in workplace activities.	Relational Leadership influences staff performance and organisational outcomes. Encourages transparent relationships that build trust and optimism to promote inclusive and healthy work environments.	All	Authentic leadership (Avolio et al 2004)

Appendix 1B Data extraction table

		positive self-development	<p>Provide greater job satisfaction, leading to higher productivity and performance.</p> <p>Develop leaders with high levels of authenticity.</p>	<p>'Leaders' know who they are & understand the values that guide them in their work – they:</p> <p>Exhibit sound relational skills</p> <p>Demonstrate authentic concern for their staff as people</p> <p>Communicate honestly & openly with others to promote positive outcomes for staff, patients and organisation</p>		
56	Mixed methods study	None	implied link with quality	Bi polar construct: how to lead vs how not to lead	Individual	None
57	Non systematic review	None	to define vision keep up morale & inspire team	Team process Balance autocratic and participative	Individual Dyadic (tactical)	Contingency theories Trait theories
58	Qualitative study	Clinical leadership in general dental practice: the skills required to provide effective patient care within a successful business	Improve quality service for patients by involving clinicians in strategy (commissioning, service & cross boundary redesign, priority setting)	Move from trait/behaviour to contingent – culture and context Facilitators and barriers	Organisational (strategic)	Collective (West 2014 Kings Fund) 2013 Story & Holti (barriers & facilitator to CL) [no. 12]

Appendix 1B Data extraction table

59	Qualitative study	none	to provide strategy and vision for clinical team	L as Individual vs L as relationship Different to management (L is transformational about future/management is transactional now) Training needed	Organisational (strategic)	Transformational (Bass 1990) Transactional (Burns 1978) 2011 Kings Fund: no more heroes [no. 6]
60	Qualitative study	none	having a vision at all levels to improve & shape dentistry at all levels & prevent loss of skill & deal with everyday challenges occurring in a dental practice	Team process Leader different to leadership Need specific qualities/behaviours	Organisational (strategic)	Shared (West 2014 Kings Fund) Transformational (Bass 1990) Trait/Behavioural
61	Non systematic review	none	advancement of dental nursing within clinical practice level and also at the national professional level to champion care of patients with pts/colleagues/employers	Needed at all levels Need leadership and management (managers are important, leaders are essential)	Individual	None

Appendix 1B Data extraction table

62	Non systematic review	none	provide vision & values so staff with common consistent purpose & clear expectations create environment & ethos [to allow development of open, honest culture] so practice delivers high quality services to pts	Different to management Influence related and working across boundaries	Individual	CQC/GDC/2009 NHS leadership framework [no.2]
63	Non systematic review	A process of influence of one individual over a group of individuals	to drive up quality of patient care, quality improvement of services, & pt focused outcomes	as individual/ as relationship as change agent Context dependant (related to organisational levels)	grand strategic (LPN)	Transformational (Bass 1990) 2006 NHS Leadership Quality framework 2012 Kings Fund: together we can [no.8]
64	Mixed methods study	none	as change agent	Context dependant L as relationship/individual How to lead/how not to lead	Organisational (strategic)	Hofstede individualist vs collectivist culture
65	Non systematic review	none	Knowing yourself, having a vision that is well communicated, building trust among colleagues, and taking effective	Need leadership and management L and management different	Individual	GDC Standards for the Dental Team

Appendix 1B Data extraction table

			action to realize your own leadership potential			
66	Qualitative study	None	multiple - contingent on role/level; goal attainment; to nurture & support team	To cross boundaries Needed at all levels Relational Context dependant (organisational level) L & management different - L transformational, rx is transactional	All levels	Transformational (Bass 1990) Situational/contingency theories Team as family related to Hofstede collectivist culture
67	Qualitative study	None	drive service improvement and effective management of teams to provide excellence in pt care	Dynamic social process Relational Leaders and followers L & management are different (L is change-transformational, rx is to do with the status quo) Both are needed. Context dependant - Diff skills needed at different organisational levels	Organisational (strategic)	2009 MLCF [no.2] Shared L
68	Qualitative study	None	Improve decision making, service improvement, increase efficiency, enhance collaboration,	Clinician better as manager Crossing boundaries Barriers to L	Operational/team	None

Appendix 1B Data extraction table




			in primary care clinical management: to service management & monitoring (not improvement)			
69	Systematic review	No standard definition of CL: the clinical component is anyone in a clinical patient role (nursing, allied health, paramedical staff)	ability to influence peers to act and enable clinical performance, provide peers with support and motivation, play a role in enacting organisational strategic direction, challenge processes, possess the ability to drive and implement the vision of delivering safety in healthcare	Needed at all levels Needs support/training for individual Clinician better as manager: need clinicians to lead clinicians	Not specified	2009 MLCF [no.2] NHS Scotland L development Strategy
70	Systematic review	None	improve quality of pt care	Clinical L same as generic L in other spheres As individual and relationship L transformational future, management transactional now Adaptive & context dependant Need training	Organisational (strategic)	H&SC Act 2012


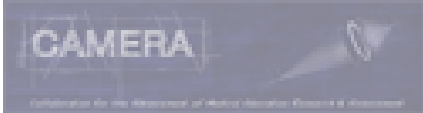

Appendix 1B Data extraction table




71	Systematic review	Multiple - emerging themes rather than global definition	address policy agendas such as patient safety and quality improvement; understand complex pathways and systems of care; be comfortable to work with and in those systems; clinicians to engage in I and rx systems at all levels TO IMPROVE HC	Complex dynamic process within system Leadership not leader Need clinicians as leaders Adaptive & context dependant	Organisational (strategic)	Shared L (West 2014 Kings Fund) Transformational (Bass 1990)
72	Qualitative	None	promote team performance to complete a task to keep team members maintained & functioning	Seen as opportunity later in life Needs training, education, support	Organisational (strategic)	None
73	Qualitative study	None	None	Relational & participative Social process	Organisational (strategic)	None


APPENDIX 2A STUDY DOCUMENTATION


i Participant information Sheet Dentist


		
<p>Participant Information Sheet: Dentist v1 12/09/2016</p>		
<h1>Participant Information Sheet: DENTIST</h1>		
<hr/> <p>Assessing management and leadership criteria for dental professionals</p>		
<p>Sally Hanks 12/09/2016</p>		
<p>Version number: 1 IRAS 162395</p>		

   <p>Participant Information Sheet: Dentist v1 12/00/2016</p>	
<h2>Assessing management and leadership criteria for dental professionals</h2>	
<p>We invite you to take part in a research study</p> <ul style="list-style-type: none">• Before you decide, it is important for you to understand why the research is being done and what it will involve.• Please take time to read the following information carefully and discuss it with others if you wish.• Ask us if there is anything that is not clear or if you would like more information.• Take time to decide whether or not you wish to take part.• You are free to decide whether or not to take part. If you choose not to your relationship or professional standing with either the researcher, GDC, University or Dental School will not be affected in any way	<p>Contents</p> <p>P1: Introduction P2: Project information P3: Your role P4: Benefits & risks P5: Complaints P6: Additional info & contact details</p>
	<p>How to contact us</p> <p>If you have any questions about this study please contact the dentist who is organising and running it:</p> <p>Dr Sally Hanks Peninsula School of Dentistry sally.hanks@plymouth.ac.uk 01752 437390</p>
<p>Important things you need to know</p> <ul style="list-style-type: none">✓ We want to find out what the terms 'management' and 'leadership' mean to dentists in General Dental Practice✓ We are doing this by means of a study which will observe dentists as they work✓ Much of what clinicians do during their working day becomes second nature, unconscious and taken for granted. This study will enable you to identify and describe these areas of your day✓ We will be video recording parts of your working day in the surgery and will be playing excerpts back to you in order to achieve this✓ You can stop taking part in this study at any time	
Page 1 of 6	v1 IRAS 162295

  
<p>Participant Information Sheet: Dentist v1. 12/09/2016</p>
<p>Who is conducting this study?</p> <p>This research is part of a PhD study in the Plymouth University Peninsula Schools of Medicine and Dentistry (PUPSMD) in partnership with the Collaboration for the Advancement of Medical Education Research and Assessment group (CAMERA) and the Education Development Pedagogic Research Institute and Observatory (PEDRIO) at Plymouth University.</p>
<p>What is the purpose of the study and how will it work?</p> <ul style="list-style-type: none">• The purpose of this study is to investigate what management and leadership means to dentists in General Dental Practice. When we know this we can develop some general concepts to help make assessment and regulation in these areas meaningful and realistic for dentists.• Dentistry in England is regulated by the General Dental Council via a series of criteria that are published in 'Standards' documents; many of these come under the heading of 'management and leadership'.• We do not yet fully understand what these standards mean in everyday General Dental Practice, as they have never been investigated. This means that dentists have not had an opportunity to establish what they really do, and in what ways management and leadership occur when applied to a dental practice setting.• This study offers dentists a chance to have a voice in the ongoing development and use of these criteria rather than being on the periphery of any modifications.• We will use a new research method – 'video reflexive ethnography' in order that you, the dentist, can tell us what you think in relation to these taken for granted areas of your working day. This will include recording periods of your daily work with patients in your surgery.• We will show you excerpts of these recordings in order to help you identify where, when and how you think 'management' and/or 'leadership' is occurring.• We can start to uncover and appreciate the complex nature of dental practice and the reality of how certain clinical processes, standards and criteria fit together. We can use this information to inform undergraduate and postgraduate education and assessment as well as fitness to practise and revalidation exercises.
<p>Page 2 of 6 v1 IRAS 163295</p>







Participant Information Sheet: Dentist v1 12/09/2016

Why have I been chosen?

We need the help and participation of real dentists working in primary care dental practice. We would like to include dentists at different stages in their careers (newly qualified to pre-retirement); from different sized practices (single surgery and large multiple surgery); with a variety of demographic backgrounds (gender, ethnicities, part time/full time, associate/principal or other); working in a range of governance settings (NHS/mixed/private).

If you work in practice, we would love to include you.

What do I have to do?

If you agree to take part we will ask you only to do what you would normally do in a working day while being observed.

We will ask you to make sure that the whole practice is happy about you taking part, and will provide you with all the information you or they might need to make up your minds.

We will visit you at your practice to make sure everyone is properly informed, and to work out how best to set up the equipment and arrange when we are able to come.

We will ask you to read all the information about the project carefully and sign a written consent to being involved.

We will set up filming equipment in your surgery for mutually convenient pre agreed times when you are working (3 x 1 hour sessions). We will observe you and take notes (field notes) during non-surgery time (2 x half hour sessions).

We will ask you to watch a series of film clips from the recordings collected, and explain what YOU think is happening in relation to your understanding of 'management' and 'leadership'. We will film this to allow us to watch it again so we don't miss anything you do or say as you develop your own insight and thoughts (1 hour).

Overview of what you will be asked to do if you agree to take part

practice visit

- coping exercise for equipment placement
- information to practice staff

data collection

minimum 5 sessions of data collection for each dentist (3 x video/2 a non-video observation)

follow up

- 1 x 1 hour recorded video reflexive ethnography session

Detail of observations, data collection and meeting to watch film

video

- 3 x 1 hour recording sessions in surgery
- dependent on working hours

observations

- 2 x half hour observation out of surgery
- 1 lunch break/ 1x practice meeting
- different time to video recording

information




- 1 x 1 hour in situ session watching excerpts of video capture
- video recorded session

What will happen to the videos?

Videos will be stored for 10 years as per University regulations. No-one apart from the researcher and her supervisory team will have access to it, and at the end of the 10-year period it will be destroyed in line with data protection requirements.

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v1 IRAS 162395

   <p>Participant Information Sheet: Dentist v1 12/09/2016</p>	
<p>Do I have to take part?</p> <p>NO: you are under no obligation to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form.</p> <p>You are still free to withdraw at any time without giving a reason.</p> <p>A decision to withdraw will not affect you in any way including your relationship with the researcher, Dental School, University or GDC</p>	<p>What is being tested?</p> <p>As this is an ethnographic study, nothing is actually being tested. We are looking at what truly happens without comparison or judgement.</p> <p>There are no right or wrong answers – we need your thoughts and insights to help us really understand the complexity of the work that you carry out in dental practice.</p>
<p>What are the benefits to me if I take part in this study?</p> <p>There is no explicit benefit to you in taking part in this study. However:</p> <ul style="list-style-type: none">• You will be adding to the body of evidence used to appropriately train and assess dental students, and dentists who are subject to fitness to practise and/or revalidation exercises – grounded in real life practice.• You will be given the chance to explore and discuss your own thoughts and ideas on the areas of management and leadership and gain unique insight into your understanding of what you actually do within the complex clinical situation.• You will be helping move away from a top down, managerial audit culture and highlight from your perspective, meaningful information about what dentists actually do in practice; to the public, profession and regulator through dissemination and sharing of this research.	
<p>What are the possible disadvantages and risks of taking part?</p> <p>There are no perceived major risks envisaged by taking part in this study.</p> <ul style="list-style-type: none">• Although the main researcher is a dentist she is acting in a researcher capacity when in the practice. If she notices anything that raises a possible concern either with regard to patient safety or dental treatment her professional duty is to let the practice know following the routine practice procedures. This will then be dealt with by the practice. It also means that she cannot make comments on or discuss any clinical work or give second opinions.• There may be some slight inconvenience in setting up the equipment. This has been taken into account – the equipment is small, unobtrusive, simple to use and positioned appropriately. All this will be arranged in the scoping exercise at the initial meeting. Dental staff will be trained how to turn the equipment off if a patient or dentist decides they want to withdraw their consent during the process.• Additional persons may enter the surgery and be recorded. The researcher will be available to either gain their consent or delete the data. Consent can be withdrawn at any time and video data deleted. Any information that has been gained from analysis already completed will remain in the study.• There may a small risk of dentists being recognised in dissemination of video excerpts of the study. Where possible all identifiable features will be removed or anonymised.• Patients may be interested in the project after the researcher has left and want to know more. They can easily contact the researcher directly and will have access to a final report via the practice.	
Page 4 of 6	v1 IRAS 161295




		
Participant Information Sheet: Dental v1.12/09/2016		
What if new information becomes available? If any information becomes available during this study that will modify either the study as a whole or your participation in it, you will be told immediately and any changes highlighted. You will be given the choice of signing a new consent form or withdrawing from the study.		
What happens when the research study stops? This study is due to be completed in 2020. When the research is completed all participants will have access to a short report detailing the findings. The study will be written up into a PhD thesis and available through normal academic channels following submission. Further publications will be submitted to academic peer reviewed journals. All data will continue to be stored in accordance with academic regulations and best practice guidelines. Videos useful for teaching or further research will only be used within the constraints of the initial content gained.		
What if something goes wrong? The risk of something going wrong related to this research is exceedingly small, and the risk of harm negligible. However, if you do feel you have been harmed in any way due to the research, details of how to complain are below.		
How to complain: If you wish to complain, or have any concerns about any aspect of the way you have been approached or treated during the course of this study please contact the researcher, Dr Sally Hanks by phone: 01752 437390 or e-mail: sally.hanks@plymouth.ac.uk . If you prefer to complain to someone other than the researcher about the study, you can contact the director of studies, Dr Samantha Regan de Bere Samantha.regandebere@plymouth.ac.uk or the PUPSMD Research Degrees on pupsmd-researchdegrees@plymouth.ac.uk If you prefer to write, all addresses are below:		
<p>Dr Sally Hanks Peninsula Dental School John Bull Building Plymouth Science Park Research Way Plymouth Devon PL6 8BU 01752 437390 sally.hanks@plymouth.ac.uk</p>	<p>PUPSMD Research Degrees Plymouth University Peninsula Schools of Medicine & Dentistry John Bull Building Plymouth Science Park Research Way Plymouth Devon PL6 8BU 01752 437471</p>	<p>Dr S Regan de Bere Deputy Director CAMERA Plymouth University Peninsula Schools of Medicine & Dentistry C407 Portland Square Plymouth University Drake Circus Plymouth PL4 8AA 01752 586764</p>
<p>Page 5 of 6 v1 IRAS 162295</p>		




  
<p>Participant Information Sheet: Dentist v1 12/09/2016</p>
<p>Will my taking part in this study be kept confidential? All information collected about you during the course of this study will be kept strictly confidential in accordance with the consent form that you will sign. Your name or practice details will not be used in any publication or other dissemination activity. You may be visibly recognisable in some of the video data used in dissemination activities but your personal details will remain confidential and all recognisable features anonymised where possible.</p>
<p>Who is organising and funding the research? Plymouth University is funding the researcher and the research. Participation in the study is entirely voluntary and no one is being paid</p>
<p>Who has reviewed the study? This study has gained ethical approval through the appropriate NHS ethics committees and through Plymouth University Faculty of Health Ethics Committee</p>
<p>Contact for further information:</p> <p>Dr Sally Hanks Peninsula Dental School John Bull Building Plymouth Science Park Research Way Plymouth Devon PL6 8BU</p> <p>01752 437390 sally.hanks@plymouth.ac.uk</p> <p>CAMERA can be contacted on camera.pupsmd@plymouth.ac.uk PUPSMD research Degrees Committee on pu.pupsmd-researchdegrees@plymouth.ac.uk</p> <p align="center">Thank you for taking part in this study!</p> <p>You will be given a copy of this information sheet, along with a signed consent form, if you agree to participate in this study.</p> <p>Page 6 of 6 v1 IRAS 162195</p>


ii Consent form Dentist

		
<p>Study IRAS Number: 162295</p>		
<p>Participant Identification Code for this trial:</p>		
<p>CONSENT FORM: DENTIST</p>		
<p>Title of Project: Assessing management and leadership criteria for dental professionals</p>		
<p>Name of Researcher: Dr Sally Hanks</p>		
		Please initial box
1. I confirm that I have read the information sheet dated 12/09/2016 (version 1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.		<input type="checkbox"/>
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my legal rights being affected.		<input type="checkbox"/>
3. I understand that relevant sections of the video data collected during the study, may be looked at by individuals from Plymouth University or regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to this data.		<input type="checkbox"/>
4. I understand that I will not be able to be identified from the data		<input type="checkbox"/>
5. I understand that the information collected about me will be used to support other research or teaching in the future, and may be shared anonymously with other researchers/students.		<input type="checkbox"/>
6. I agree to take part in the above study.		<input type="checkbox"/>
_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Person	Date	Signature
<p>Viewing consent</p>		
<p>2 copies: 1 copy for participant dentist; 1 copy for researcher</p>		
<p style="text-align: right;">v1 12/09/2016</p>		


iii Participapnt Information Sheet Patient

		
<p>Participant Information Sheet: Patient v1 12/09/2016</p>		
<p> </p>		
<h1>Participant Information Sheet: PATIENT</h1>		
<hr/> <h2>Assessing management and leadership criteria for dental professionals</h2>		
<p>Sally Hanks 12/09/2016</p>		
<p>Version number: 1 IRAS 163295</p>		


   <p>Participant Information Sheet: Patient v1 12/09/2016</p>	
<h2>Assessing management and leadership criteria for dental professionals</h2>	
<p>We invite you to take part in a research study</p> <ul style="list-style-type: none">• Before you decide, it is important for you to understand why the research is being done and what it will involve• Please take time to read the following information carefully and discuss it with others if you wish• Ask us if there is anything that is not clear or if you would like more information.• Take time to decide whether or not you wish to take part• You are free to decide whether or not to take part. If you choose not to, your dental care will not be affected in any way. Neither will your relationship with your dentist, or the researcher or the University	<p>Contents</p> <p>P1: Introduction P2: Project information P3: Your role P4: Benefits & risks P5: Complaints P6: Additional info & contact details</p>
	<p>How to contact us</p> <p>If you have any questions about this study please contact the dentist who is organising and running it:</p> <p>Dr Sally Hanks Peninsula School of Dentistry</p> <p>sally.hanks@plymouth.ac.uk 01752 437390</p>
<p>Important things you need to know</p> <ul style="list-style-type: none">✓ We want to find out what the terms 'management' and 'leadership' mean to dentists in General Dental Practice✓ We are doing this by means of a study which will observe dentists as they work✓ Much of what clinicians do during their working day becomes second nature, unconscious and taken for granted. This study will enable dentists to identify and describe these areas of their day✓ We need to observe dentists as they treat their patients – we are asking if you would be happy for your dentist to be filmed while treating you✓ You can stop taking part in this study at any time	
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WITH PLYMOUTH UNIVERSITY PENINSULA



CAMERA



PedRIO WITH PLYMOUTH UNIVERSITY

Participant Information Sheet: Patient v1 12/09/2016

Who is conducting this study?




This research is part of a PhD study in the Plymouth University Peninsula Schools of Medicine and Dentistry (PUPSMD) in conjunction with the Collaboration for the Advancement of Medical Education Research and Assessment group (CAMERA) and the Education Development Pedagogic Research Institute and Observatory (PEDRIO) at Plymouth University.




What is the purpose of the study and how will it work?

- The purpose of this study is to investigate what management and leadership means to dentists in General Dental Practice. When we know this we can develop some general ideas that may help make assessment and regulation in these areas meaningful and realistic for dentists.
- Dentistry in England is regulated by the General Dental Council (GDC) via a series of criteria that are published in 'Standards' documents; many of these come under the heading of 'management and leadership'.
- We do not yet fully understand what these standards mean in everyday General Dental Practice, as it has never been investigated. This means that dentists have not had an opportunity to establish what they really do, in particular in what ways management and leadership occur when applied to dental practice.
- This study offers dentists a chance to have a voice in the ongoing development and use of these criteria rather than being on the fringe of any modifications or changes.
- We will use a new research method – 'video reflexive ethnography' in order that your dentist can tell us what they think about their everyday work. This will include video recording periods of their day, including with patients in their surgery.
- We will work with your dentist to uncover and appreciate the complex nature of their work, and understand how what they do fits together with regulatory standards. This will help us keep patients safe in future by educating new dentists in the best way and help the GDC quality assure existing dentists to achieve the same high standards.
- The PhD process will continue for 5-6 years, but the research involving collecting data and visiting practices will take place within 1 year (January 2017- January 2018).

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v1 IRAS 162295

		
Participant Information Sheet: Patient v1 12/09/2016		
Why have I been chosen? We need the help of real dentists working in primary care dental practice and your dentist has offered to take part. It would be pointless to study dentists without observing them when they are actually treating patients. Your appointment is scheduled during the time we are planning to film your dentist, so you are being offered the opportunity to take part.		
What is being tested? As this is an 'ethnographic' study, nothing is being tested. We are looking at what truly happens in relation to what dentists think management and leadership mean in the complex work of dentistry.		
What do I have to do if I take part? If you decide to take part the researcher will explain everything to you and ask you to sign a consent form prior to your scheduled appointment. All you have to do is attend your appointment 15 minutes early to sign a consent form and your dental appointment will go ahead as normal. The only difference will be that the dentist will be filmed while they work. The whole point of this research is to look at what dentists really do, so we want things to be as normal as possible.	Do I have to take part? NO: you are under no obligation to take part if you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw at any time up until filming has been completed and without giving a reason. A decision to withdraw will not affect you in any way including your dental care, relationship with your dentist or practice, the researcher, Dental School or University	
What are the benefits to me if I take part in this study? There is no explicit benefit to taking part in this study. However, you will be adding to the body of evidence used to most appropriately train and assess dental students and qualified dentists – and therefore you will be helping to improve the safety and positive experience of all patients in the future.		
What are the possible disadvantages and risks of taking part? There are no perceived major risks envisaged by taking part in this study. <ul style="list-style-type: none">• Although the main researcher is a dentist she is acting in a researcher capacity when in the practice. If she notices anything of concern either with regard to patient safety or dental treatment her professional duty is to let the practice know following the routine practice procedures. This will then be dealt with by the practice. It also means that she cannot make comments on or discuss any clinical work or give second opinions.• There may a small risk of dentists being recognised when video excerpts of the study are shared. There is no risk with patients. All distinguishing features on any video clip will be anonymised before sharing.		
Page 3 of 5		v1 IRAS 162295




		
Participant Information Sheet: Patient v1 12/09/2016		
What if I change my mind? You can change your mind at any time. If you decide during your appointment then just tell your dentist and the camera will be switched off and the recording deleted. If you decide later, you can contact the researcher who will make sure any recordings with you in are deleted. If information has already been analysed the recordings will still be deleted but information we may have learned from that clip will still be included.		
What if new information becomes available? If any information becomes available during this study that will modify either the study as a whole or your participation in it, you will be contacted by your practice and told immediately and any changes highlighted. You will be given the choice of signing a new consent form or withdrawing from the study.		
What happens when the research study stops? This study is due to be completed in 2020. When the research is completed all participants will have access to a short report detailing the findings. The study will be written up into a PhD thesis available through normal academic channels following submission. Further publications will be submitted to professional academic peer reviewed journals. All data will continue to be stored in accordance with academic regulations and best practice guidelines. Video useful for teaching or further research will only be used within the constraints of the initial consent gained.		
Will my taking part in this study be kept confidential? All information collected about you during the course of this study will be kept strictly confidential in accordance with the consent form that you will sign. Your name will not be used in any publication or other dissemination activity. You will not be visibly recognisable in any of the video data used in dissemination activities and your personal details will remain confidential to the practice. For the purposes of the research you will be identified using a code which the researcher will give to you on your consent form.		
Who is organising and funding the research? Plymouth University is funding the researcher and the research. Participation in the study is entirely voluntary and no one is being paid		
Who has reviewed the study? This study has gained ethical approval through the appropriate NHS ethics committees and through Plymouth University Faculty of Health Ethics Committee		
Page 4 of 5		v1 IRAS 162295

		
Participant Information Sheet: Poticat v1 12/09/2016		
<p>What if something goes wrong? The risk of something going wrong related to his research is exceedingly small, and the risk of harm negligible. However, if you do feel you have been harmed in any way due to the research details of how to complain are below.</p>		
<p>How to complain: If you wish to complain, or have any concerns about any aspect of the way you have been approached or treated during the course of this study please contact the researcher, Dr Sally Hanks by phone: 01752 437390 or e-mail: sally.hanks@plymouth.ac.uk.</p> <p>If you prefer to complain to someone other than the researcher about the study, you can contact the director of studies Dr Samantha Regan de Bere Samantha.regandeber@plymouth.ac.uk PUPSMO Research Degrees on pupsmo-researchdegrees@plymouth.ac.uk</p> <p>If you prefer to write, all addresses are below:</p>		
<p>Dr Sally Hanks Plymouth University Peninsula School of Dentistry John Bull Building Plymouth Science Park Research Way Plymouth Devon PL6 8BU</p> <p>Tel: 01752 437390</p>	<p>PUPSMO Research Degrees Plymouth University Peninsula Schools of Medicine & Dentistry John Bull Building Plymouth Science Park Research Way Plymouth Devon PL6 8BU</p> <p>Tel: 01752 437471</p>	<p>Dr S Regan de Bere Deputy DSS Director CAMERA Plymouth University Peninsula Schools of Medicine & Dentistry C407 Portland Square Plymouth University Drake Circus Plymouth PL4 8AA</p> <p>Tel: 01752 586764</p>
<p>Further information: For all information related to this project please contact the researcher</p> <p>Sally Hanks Peninsula Dental School John Bull Building Plymouth Science Park Research Way Plymouth Devon PL6 8BU</p> <p>01752 437390 sally.hanks@plymouth.ac.uk</p>		
<p>I thank you for taking part in this study! If you agree to participate you will be given a copy of this information sheet, along with your signed consent form.</p>		
<p>Page 5 of 5</p>		<p>v1 IRAS 162295</p>


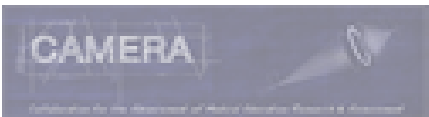

iv. Consent Form Patient

		
Study Number: 162295		
Participant Identification Number for this trial:		
CONSENT FORM: PATIENT		
Title of Project: Assessing management and leadership criteria for dental professionals		
Name of Researcher: Dr Sally Hanks		
Please initial box		
1. I confirm that I have read the information sheet dated 12/09/2016 (version 1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.		<input type="checkbox"/>
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my legal rights being affected.		<input type="checkbox"/>
3. I understand that relevant sections of the video data collected during the study, may be looked at by individuals from Plymouth University or regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to this data.		<input type="checkbox"/>
4. I understand that taking part involves my dentist being video recorded while treating me and that I will not be identifiable from any data		<input type="checkbox"/>
5. I understand that the information collected about me will be used to support other research or teaching in the future, and may be shared anonymously with other researchers/students.		<input type="checkbox"/>
6. I agree to take part in the above study		<input type="checkbox"/>
_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of person taking consent	Date	Signature
3 copies: 1 copy for participant/patient; 1 copy for researcher; 1 copy for patient dental file		
v1 12/09/2016		

v. Information and consent Additional Staff

		
Assessing management and leadership criteria for dental professionals		
Additional Staff information sheet v1.12/09/2016		
Who is conducting this study?		
<p>This research is part of a PhD study in the Plymouth University Peninsula Schools of Medicine and Dentistry (PUPSMD) in conjunction with the Collaboration for the Advancement of Medical Education Research and Assessment group (CAMERA) and the Education Development Pedagogic Research Institute and Observatory (PEDRIO) at Plymouth University.</p>		
What is the purpose of the study and how will it work?		
<ul style="list-style-type: none">• The purpose of this study is to investigate what management and leadership means to dentists in General Dental Practice. When we know this we can develop some general ideas that may help make assessment and regulation in these areas meaningful and realistic for dentists.• Dentistry in England is regulated by the General Dental Council (GDC) via a series of criteria that are published in 'Standards' documents; many of these come under the heading of 'management and leadership'.• We do not yet fully understand what these standards mean in everyday General Dental Practice, as it has never been investigated. This means that dentists have not had an opportunity to establish what they really do, in particular in what ways management and leadership occur when applied to dental practice.• We will use a new research method – 'video reflexive ethnography' in order that your dentist can tell us what they think about their everyday work. This will include video recording periods of their day, including with patients in their surgery.• We will work with your dentist to uncover and appreciate the complex nature of their work, and understand how what they do fits together with regulatory standards. This will help us keep patients safe in future by educating new dentists in the best way and help the GDC quality assure existing dentists to achieve the same high standards.• The PhD process will continue for 5-6 years, but the research involving collecting data and visiting practices will take place within 1 year (January 2017 – January 2018).		
2 copies: 1 copy for additional staff; 1 copy for researcher		
v1.12/09/2016		

WITH PLYMOUTH UNIVERSITY PENINSULA <small>SCHOOL OF MEDICINE & DENTISTRY</small>	CAMERA <small>CONTRIBUTING TO THE RESEARCH OF MEDICAL SERVICES PROVIDED IN DENTISTRY</small>	PedRIO WITH PLYMOUTH UNIVERSITY
<p>Your dentist has agreed to take part in this research project and they are being recorded today. If you enter the surgery you may be unintentionally captured in the video.</p> <p>It is important that during filming, events occur as naturally as they would at any other time. It may be that your interaction with the dentist is seen by them as important when it comes to analysing the video in detail. In this case it will be important to use that excerpt in the report and potentially when showing and telling others about our findings.</p> <p>If we do use parts of the video that you appear in, then every effort will be made to make sure you cannot be recognised. Any identifiable features will be pixelated, blurred or blanked out before showing it, and any audio containing names will be removed.</p> <p>To show that you understand this information and are happy for us to use the video for research and teaching purposes please complete the consent form below.</p>		
<small>2 copies: 1 copy for additional staff; 1 copy for researcher</small>		<small>v1 15/06/2018</small>

		
Study Number: 162295		
CONSENT FORM: ADDITIONAL STAFF		
Title of Project: Assessing management and leadership criteria for dental professionals		
Name of Researcher: Dr Sally Hanks		
Please initial box		
1. I confirm that I have read the short version information sheet dated 12/09/2016 (version 1) that relates to the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	<input type="checkbox"/>	
2. I understand that in the course of my duties it may involve entering the room where the research is taking place and that I may be captured in the video recording of the dentist at work.	<input type="checkbox"/>	
3. I understand that where any images are captured that they will be anonymised so that I cannot be recognised in any footage used for data analysis and results.	<input type="checkbox"/>	
4. I understand that data collected may be looked at by individuals from Plymouth University or regulatory authorities where this is relevant and I give permission for this.	<input type="checkbox"/>	
5. I understand and agree to the above terms.	<input type="checkbox"/>	
_____ Name of individual	_____ Date	_____ Signature
_____ Name of person taking consent	_____ Date	_____ Signature
2 copies: 1 copy for additional staff; 1 copy for researcher		
v1 12/09/2016		

APPENDIX 3A ADDITIONAL DEMOGRAPHIC DATA

Additional details of the dentist participants and their practice environment

Case study D1

Principal of practice and practice owner.

Qualified 20 years. Bought practice 8 years ago. Associate prior to that with 2 years working in New Zealand Dental School.

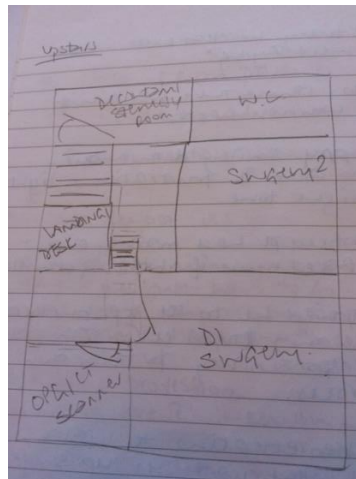
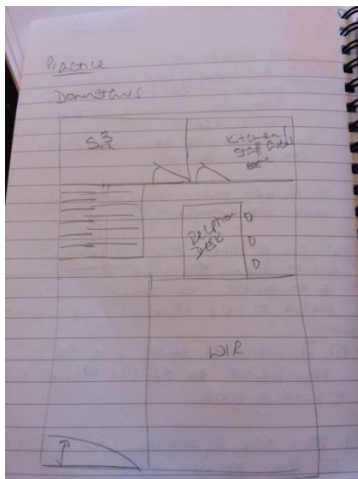
2 surgery, rural small town practice located on small one-way street away from high street.

Converted terraced residential property. No parking in immediate vicinity.

3 surgeries (max 2 in use at any one time): 2 upstairs and 1 downstairs (for improved access).

Waiting room and reception area downstairs. Decontamination and sterilising room upstairs.

Store room/kitchen/staff area downstairs.



Staff working today:

1 female nurse working in surgery with D1. Was already member of staff when D1 bought practice 8 years ago. Previously worked in military. Known to D1 socially from local community.

1 female nurse acting as receptionist – newest member of staff. Local person. Is undergoing dental nurse training – practice is paying.

1 female dental nurse – slightly more experienced – on a 'keep in touch' day during her maternity leave. Qualified just before going on maternity leave. Working with associate dentist. Local person.

Associate dentist – female – qualified 13.5 years. Married to local dental technician who does the practice lab work. Not originally local – worked elsewhere in different area before moving here. Has worked with D1 for 8 years since he bought practice.

Case study D2

Female part time 1day/week plus occasional Saturday surgery.

D2 qualified within 5 years but had previous career in higher education and research in academia in biomedical science. Qualified 4 years ago DFT 2014-2015. Associate since then (3 years 2015 – 2018)

Associate in Corporate (BUPA was OASIS) Dental Care practice. Previously privately owned established dental practice. Mixed practice: NHS, BUPA ('Oasis Basic' insurance) and fully private patients. Suburban practice in town – 7 surgeries. Often multiple working at once.

Average Tuesday 6 surgeries run: with 18 staf - 12 clinicians/nurses; hygienist; decontamination; 3 x receptionist; 1 x PM

5 dentists, 2 therapists, 1 hygienist

Sometimes all 7 surgeries work at once: 6 dentists 1 hygienist or 5 dentists 2 hygienists

On this day one surgery only working.

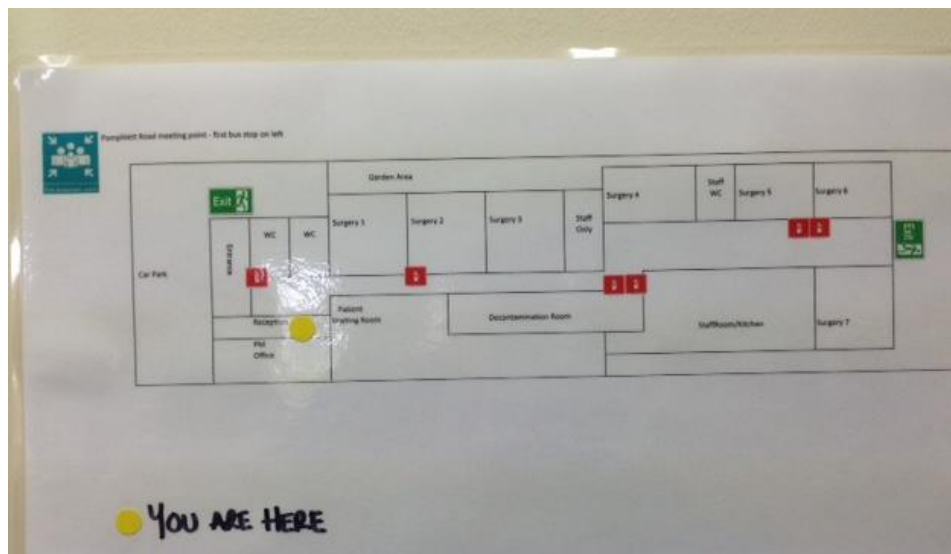
Staff working: 1 male receptionist, 1 female nurse (relatively newly qualified) – nurse does not routinely work with D2.

Practice Manager (female) came in at 10am but was not officially 'in work'.

Practice in need of full time dentist but all hiring/firing under control of company and can only find 4 day/week – will not hire. Direct impact on practice.

1 card machine for all surgeries and 2 telephones.

Practice layout as per image:



Female part time 4day/week Practice Owner and Principal Dentist

Mixed practice: NHS, insurance (Denplan) & fully private patients.

Case Study D3

D3 qualified over 10 years ago and has worked in hospital and practice since then. Purchased practice from her father 3 years ago.

City centre – Practice is in business unit with independent orthodontic clinic along corridor.

Toilets run by building owners

First floor – lift and stairs to access. Training practice for DFT. 5 'pods' / surgeries. Often multiple working at once.

4 dentists (including DFT), 1 hygienist (advertising for another)

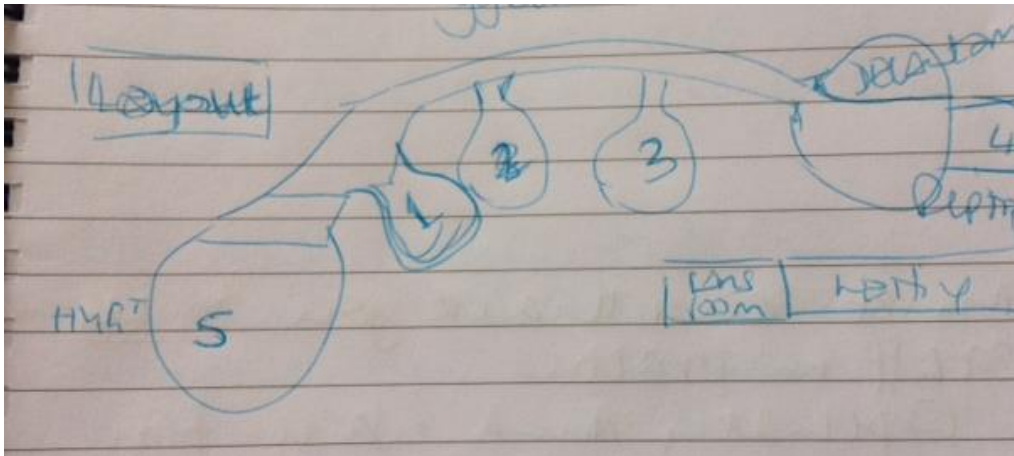
Sometimes all 5 surgeries work at once: 4 dentists 1 hygienist

On this day 4 out of 5 were working (3 dentists including DFT and 1 hygienist)

All female staff at the moment – not by design.

In addition to clinicians: 2 receptionists (including the 1 PM), 4 nurses

Practice layout as per image:



Pods all attached to back corridor with all equipment and decontamination/sterilising room

Pod 5 newly built

No parking in shopping area but multi-storey nearby to supply shops

Case Study D4

Female part time (2 day/week) qualified less than 5 years. DFT 2013-14. Associate since then (2015-2018).

Associate in practice owned by D5 and D6 as well as associate elsewhere in NHS practice 3 days/week. Has just gone from half day to full day Tuesday (so 1.5 – 2 days/week).

D4 was graduate of D5 and still is mentored by him for facial aesthetics – cases shared.

Qualified with D6 and D7. Has had maternity leave, not interested in buying practice or owning one. Has been p/t associate since D5 and D6 bought it.

Mixed practice: NHS, insurance (non-brand) & fully private patients (see D5).

Case Study D5

Male part time 1.5 day/week. Practice Owner and Principal Dentist. D5 works 1.5 days/week in this practice and 3 days elsewhere – including 1 day in NHS practice elsewhere.

Mixed practice: NHS, insurance (non-brand) & fully private patients.

D5 qualified over 25 years and has worked in and owned several practices since then. Purchased this practice 18 months ago from retiring dentist. Purposeful purchase after selling last practice to a corporate and working out agreed commitment. Wants to bring on new talent and mentor/support new dentists to own their own practices in the future.

In partnership with D6.

Retained 2 staff (reception) who have been with practice 25 years.

Massive change to practice in 18 months: purchased next door property one year ago so has 3 surgeries in original building (2 upstairs have been completely refurbished; downstairs has been 'tidied up' and 1 new one in newly developed side. Physical changes went from 1 to 3 surgeries immediately.

Practice 'rents' additional surgery space in Newton Abbott; D6 and D7 do half a day each over there. Own 'Medi-Spa' clinic next door. In Medi spa 2 additional therapy rooms (osteopath (half day/week) and podiatrist (half day/ week) and for facial aesthetic treatments (fat freezing machine, laser hair removal botox & fillers). Nurse will be trained to use laser hair removal kit

Therapy rooms could be converted later to dental surgery if necessary.

Upstairs @ top of building is staff room (with small kitchen area and toilet) and office space.

2 partners 3 newer associates qualified < 5 years (p/t 2 female one male) one female only doing cosmetic work (botox, fillers etc)

One more experienced associate (qualified over 30 years) who owned practice across the road.

One hygienist who works 2 days/week.

D5 acts as mentor for D4 and D6 for cosmetic treatments and business side of things respectively.

One waiting room for all surgeries. Second w/r available on medi spa side and front door can be opened up if needed. Small desk with computer – but more difficult if one receptionist over there and one in dental side.

3 surgeries running today – 4th available if necessary and PM also nurses.

Staff working:

AM 3 dentists: 1 partner – 2 associates. 2nd partner in practice – available if required

PM – 1 partner and 3 associates (two in surgery and 1 being mentored to provide cosmetic work with D5).

4 nurses – 3 apprentices and lead nurse

1 PM – who can also nurse

2 receptionists

Case Study D6

Male, qualified less than 5 years, practice partner with D5, and principal dentist.

Previous career in the military.

Same practice layout as D5 –mixed practice.

Took over retiring dentist's book when purchased practice.

Case Study D7

Male part time (2 day/week) qualified less than 5 years. DFT 2013-2014. Works as restorative assistant in Torbay hospital secondary care, half day /week for this practice in rented surgery elsewhere, and 2 days/week in local NHS practice.

Mixed practice: NHS, insurance (non-brand) & fully private patients.

Associate in practice owned by D5 and D6

D7 was graduate of D5 and trained with D6 & D4. Has completed additional training in hospital.

Bibliography

Adair, J. E. (2009) *Effective leadership: how to be a successful leader*. 2nd edn. London: Pan.

Adair, J. G. (1984) 'The Hawthorne effect: A reconsideration of the methodological artifact'. *Journal of Applied Psychology*, 69 (2), pp. 334-345.

Addicott, R., Maguire, D., Honeyman, M. & Jabbal, J. (2015) 'Workforce planning in the NHS'. *The Kings Fund*, London. Available at: <https://www.kingsfund.org.uk/publications/workforce-planning-nhs> (Accessed: 21st September 2018).

Akerjordet, K. & Severinsson, E. (2008) 'Emotionally intelligent nurse leadership: A literature review study'. *Journal of Nursing Management*, 16 (5), pp. 565-577.

Akerjordet, K. & Severinsson, E. (2010) 'The state of the science of emotional intelligence related to nursing leadership: An integrative review'. *Journal of Nursing Management*, 18 (4), pp. 363-382.

Alban-Metcalfe, J. & Alimo-Metcalfe, B. (2009) 'Engaging leadership part one: competencies are like Brighton Pier'. *International Journal of Leadership in Public Services*, 5 (1), pp. 10-18.

Alban-Metcalfe, J. & Alimo-Metcalfe, B. (2013) 'Reliability and validity of the "leadership competencies and engaging leadership scale"'. *International Journal of Public Sector Management*, 26 (1), pp. 56-73.

Alilyyani, B., Wong, C. A. & Cummings, G. (2018) 'Antecedents, mediators, and outcomes of authentic leadership in healthcare: A systematic review'. *International Journal of Nursing Studies*, 83 pp. 34-64.

Alimo-Metcalfe, B. & Alban-Metcalfe, J. (2008) 'Engaging leadership Creating organisations that maximise the potential of their people.' *Chartered Institute of Personnel and Development CIPD*. Available at: <https://engageforsuccess.org/wp->

Bibliography

content/uploads/2015/10/Shaping-the-Future-Engaging_Leadership-Creating-Orgs-that-Maximise-the-Potential-of-their-People.pdf. (accessed 23rd October 2016).

Alimo-Metcalfe, B., Alban-Metcalfe, J., Bradley, M., Mariathasan, J. & Samele, C. (2008) 'The impact of engaging leadership on performance, attitudes to work and wellbeing at work. A longitudinal study'. *Journal of Health Organization and Management*, 22 (6), pp. 586-598.

Allen, D. (2004) 'Ethnomethodological insights into insider–outsider relationships in nursing ethnographies of healthcare settings'. *Nursing Inquiry*, 11 (1), pp. 14-24.

Amin, Z. (2012) 'Purposeful assessment'. *Medical Education*, 46 (1), pp. 4-7.

Anderson, L. W., Krathwohl, D. R., Airasian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., Raths, J. & Wittrock, M. C. (2001) *A Taxonomy for Learning, Teaching, and Assessing: Pearson New International Edition: A Revision of Bloom's Taxonomy of Educational Objectives, Abridged Edition*. Harlow: Harlow : Pearson.

Andrews, T. (2012) 'What is Social Constructionism?'. *Grounded Theory Review*, 11 (1), pp. 39-46.

Atkinson, P. & Pugsley, L. (2005) 'Making sense of ethnography and medical education'. *Medical Education*, 39 (2), pp. 228-234

Avolio, B., Bass, B. M. & Jung, D. I. (1999) 'Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire'. *J. Occup. Organ. Psychol.*, 72 pp. 441-462.

Avolio, B. J. & Bass, B. M. (1995) 'Individual consideration viewed at multiple levels of analysis: A multi-level framework for examining the diffusion of transformational leadership'. *The Leadership Quarterly*, 6 (2), pp. 199-218.

Avolio, B. J. & Gardner W. L. (2005). 'Authentic leadership development: Getting to the root of positive forms of leadership.' *The Leadership Quarterly*, 16(3), pp. 315-338.

Bachevalier, J. & Loveland, K. A. (2006) 'The orbitofrontal–amygdala circuit and self-regulation of social–emotional behavior in autism'. *Neuroscience and Biobehavioral Reviews*, 30 (1), pp. 97-117.

Bibliography

Baker, W. D. & Green, J. L. (2007) 'Limits to Certainty in Interpreting Video Data: Interactional Ethnography and Disciplinary Knowledge'. *Pedagogies: An International Journal*, 2 (3), pp. 191-204.

Bambale, A. J. a. (2014) 'Relationship between Servant Leadership and Organizational Citizenship Behaviors: Review of Literature and Future Research Directions'. *Journal of Marketing & Management*, 5 (1), pp. 1-16.

Banfield, G. (2004) 'What's really wrong with ethnography?'. *International Education Journal*, 4 (4), pp. 53-64.

Barker, R. (2010) 'No, management is not a profession'. *Harvard Business Review*, 88 (7-8), pp. 52.

Barnhoorn, P. C., Houtlosser, M., Ottenhoff-De Jonge, M. W., Essers, G. T. J. M., Numans, M. E. & Kramer, A. W. M. (2018) 'A practical framework for remediating unprofessional behavior and for developing professionalism competencies and a professional identity'. *Medical teacher*, 41 (3), pp. 1-6.

Barsh, J., Cranston, S. & Craske, R. A. (2008) 'Centered leadership: how talented women thrive'. *McKinsey Quarterly*, (4), pp. 35-36.

Bass, B. M. (1990) 'From Transactional to Transformational Leadership: Learning to Share the Vision'. *Organizational Dynamics*, 18 (3), pp. 19-31.

Bass, B. M. (1997) 'Does the Transactional–Transformational Leadership Paradigm Transcend Organizational and National Boundaries?' *American Psychologist*, 52 (2), pp. 130-139.

Bass, B.M. and Avolio, B.J. (1990) 'Developing Trans-formational Leadership: 1992 and Beyond.' *Journal of European Industrial Training*, 14, pp21-27

BDA (2019) 'Tackling stress in dentistry'. British Dental Association. [Online]. Available at: <https://bda.org/stress> (Accessed: 10/05/2019).

Ben-Yehuda, M. (2015) 'The Route to Success – Personal-Academic Coaching Program'. *Procedia - Social and Behavioral Sciences*, 209 (C), pp. 323-328.

Biggs, J. & Tang, C. (2011) *Teaching For Quality Learning At University*. Fourth edn. McGraw-Hill Education.

Bibliography

Billig, M. (1988) *Ideological dilemmas : a social psychology of everyday thinking*. ed. Billig, M., London: Sage.

Birden, H., Glass, N., Wilson, I., Harrison, M., Usherwood, T. & Nass, D. (2014) 'Defining professionalism in medical education: A systematic review'. *Medical Teacher*, 36 (1), pp. 47-61.

Bloom, B., S. (1953) 'Thought-Processes in Lectures and Discussions'. *Journal of General Education*, 7 pp. 160-169.

Booth, A. (2016) 'Searching for qualitative research for inclusion in systematic reviews: a structured methodological review'. *Systematic Reviews*, 5 (75),

Bolden, R. & Gosling, J. (2006) 'Leadership Competencies: Time to Change the Tune?'. *Leadership*, 2 (2), pp. 147-163.

Bonner, A. & Tolhurst, G. (2002) 'Insider-outsider perspectives of participant observation'. *Nurse researcher*, 9 (4), pp. 7.

Borbasi, S., Jackson, D. & Wilkes, L. (2005) 'Fieldwork in nursing research: positionality, practicalities and predicaments'. *Journal of Advanced Nursing*, 51 (5), pp. 493-501.

Bordage, G. (2009) 'Conceptual frameworks to illuminate and magnify'. *Medical Education*, 43 (4), pp. 312-319.

Boyatzis, R. E. (2008) 'Competencies in the 21st century'. *Journal of Management Development*, 27 (1), pp. 5-12.

Brewer, M., Flavell, H., Trede, F. & Smith, M. (2016). "A scoping review to understand "leadership" in interprofessional education and practice." *Journal of Interprofessional Care*, 30(4), pp. 408-415.

Brewer, J. D. (2000) *Ethnography*. Buckingham, Milton Keynes and Philadelphia: Open University Press.

Brocklehurst, P., Nomura, M., Ozaki, T., Ferguson, J. & Matsuda, R. (2013) 'Cultural differences in clinical leadership: a qualitative study comparing the attitudes of general dental practitioners from Greater Manchester and Tokyo'. *British Dental Journal*, 215 (10), pp. E19-E19.

Bibliography

Brocklehurst, P., Ferguson, J., Taylor, N. & Tickle, M. (2013a) 'What is clinical leadership and why might it be important in dentistry?' *British Dental Journal*, 214 (5), pp. 243-246.

Brookfield, S. (1998) 'Critically reflective practice'. *Journal of Continuing Education in the Health Professions*, 18 (4), pp. 197-205.

Brown, A., Crookes, P. & Dewing, J. (2015). 'Clinical leadership in pre-registration nursing programmes--an international literature review.' *Contemporary Nurse*, 51(1), pp. 39-55.

Brown, J., Burke, F. J. T., Macdonald, E. B., Gilmour, H., Hill, K. B., Morris, A. J., White, D. A., Muirhead, E. K. & Murray, K. (2010) 'Dental practitioners and ill health retirement: causes, outcomes and re-employment'. *British Dental Journal*, 209 (5), pp. E7.

Burns, J. M. (2012) *Leadership*. New York, NY: Open Road Integrated Media.

Cai, R. Y., Richdale, A. L., Uljarević, M., Dissanayake, C. & Samson, A. C. (2018) 'Emotion regulation in autism spectrum disorder: Where we are and where we need to go'. *Autism Research*, 11 (7), pp. 962-978.

Cameron, S., Harbison, J., Lambert, V. & Dickson, C. (2012). 'Exploring leadership in community nursing teams.' *Journal of Advanced Nursing*, 68(7), pp. 1469-1481.

Carminati, L. (2018) 'Generalizability in Qualitative Research: A Tale of Two Traditions'. *Qualitative Health Research*, 28 (13), pp. 2094-2101.

Carroll, K., Iedema, R. & Kerridge, R. (2008) 'Reshaping ICU ward round practices using video-reflexive ethnography'. *Qualitative Health Research*, 18 (3), pp. 380 - 390.

Carsten, M. K., Uhl-Bien, M., West, B. J., Patera, J. L. & McGregor, R. (2010) 'Exploring social constructions of followership: A qualitative study'. *The Leadership Quarterly*, 21 (3), pp. 543-562.

Chapman, H. R., Chipchase, S. Y. & Bretherton, R. (2015) 'Understanding emotionally relevant situations in primary dental practice. 3. Emerging narratives'. *British Dental Journal*, 219 (10), pp. 491-496

Charmaz, K. (2006) *Constructing grounded theory : A practical guide through qualitative analysis*. London: SAGE.

Bibliography

Charters, E. (2003) 'The Use of Think-aloud Methods in Qualitative Research An Introduction to Think-aloud Methods'. *Brock Education : a Journal of Educational Research and Practice*, 12 (2), pp. 68 - 82.

Choo, E. K., DeMayo, R. F. & Glaucomflecken (2018) 'A lexicon for gender bias in academia and medicine'. *British Medical Journal*, 363 pp. k5218.

Ciampa, D. (2016) 'When Charismatic Leadership Goes Too Far'. *Harvard Business Review*, 94 (11),

Clarke, S. (2013) 'Safety leadership: A meta-analytic review of transformational and transactional leadership styles as antecedents of safety behaviours'. *Journal of Occupational and Organizational Psychology*, 86 (1), pp. 22-49.

Codier, E. (2014) 'Making the case for emotionally intelligent leaders'. *Nurse Management*, 45 (1), pp. 44-48

Collier, A. (2016) 'Practice development using video-reflexive ethnography: promoting safe space(s) towards the end of life in hospital'. *International Practice Development Journal*, 6 (1), pp. 1-16.

Collin, V., Toon, M., O'Selmo, E., Reynolds, L. & Whitehead, P. (2019) 'A survey of stress, burnout and well-being in UK dentists'. *British Dental Journal*, 226 (1), pp. 40-49.

Cook, D. A. & West, C. P. (2012). 'Conducting systematic reviews in medical education: a stepwise approach.' *Medical Education*, 46(10), pp. 943-952.

COPDEND (2016) 'UK Dental Core Training Curriculum'. 75 pp. Available at: <https://www.copdend.org/postgraduate-training/dental-core-training-curriculum/> (Accessed: 01/02/2019).

Cotton, D. & Gresty, K. (2006) 'Reflecting on the think-aloud method for evaluating e-learning'. *British Journal of Educational Technology*, 37 (1), pp. 45-54.

CQC (2018) 'Key lines of enquiry, prompts and ratings characteristics for healthcare services (with changes from 2015 versions)'. Available at: <https://www.cqc.org.uk/guidance-providers/healthcare/key-lines-enquiry-healthcare-services> (Accessed: 01/02/2019).

Bibliography

Creswell, J. W. (2013) 'Qualitative inquiry & research design : choosing among five approaches'. Qualitative inquiry and research design. 3rd ed. edn. Thousand Oaks, Calif. London: SAGE.

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A. & Sheikh, A. (2011) 'The case study approach'. *BMC Medical Research Methodology*, 11 (1), pp. 100-100.

Cruess, R. L., Cruess, S. R., Boudreau, J. D., Snell, L. & Steinert, Y. (2015) 'A schematic representation of the professional identity formation and socialization of medical students and residents: a guide for medical educators'. *Academic Medicine*, 90 (6), pp. 718.

Cruess, R. L., Cruess, S. R. & Steinert, Y. (2016) 'Amending Miller's Pyramid to Include Professional Identity Formation'. *Academic Medicine*, 91 (2), pp. 180-185.

Cruz, L. & Rosemond, L. (2017) 'Coaching Academia: The Integration of Coaching, Educational Development, and the Culture of Higher Education'. *Journal on Excellence in College Teaching*, 28 (4), pp. 83-108.

Cudmore, H. & Sondermeyer, J. (2007) 'Through the looking glass being a critical ethnographic researcher in a familiar nursing context.(ethnographic research)'. *Nurse Researcher*, 14 (3), pp. 25.

Cullen, K., Willburn, P., Chrobot-Mason, D. & Palus, C. (2014) *Networks: How Collective Leadership Really Works*. Center for Creative Leadership Available at: www.ccl.org/wp-content/uploads/2015/04/networksHowCollective.pdf (Accessed: 23rd October 2016).

Cummings, G., MacGregor, T., Davey, M., Lee, H., Wong, C., Lo, E., Muise, M., & Stafford, E. (2010). 'Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review.' *International Journal of Nursing Studies* 47(3), pp. 363-385.

Bibliography

Cummings, G., Lee, H., Macgregor, T., Davey, M., Wong, C., Paul, L. & Stafford, E. (2008). Factors contributing to nursing leadership: a systematic review. *J. Health Serv. Res. Policy*. 13, pp. 240-248.

Cumming, J. & Maxwell, G. S. (1999) 'Contextualising Authentic Assessment'. *Assessment in Education: Principles, Policy & Practice*, 6 (2), pp. 177-194.

Davies, H. (2005) 'Work based assessment'. *BMJ*, 331 (7514), pp. s88

Dawkins, S., Tian, A. W., Newman, A. & Martin, A. (2017) 'Psychological ownership: A review and research agenda'. *Journal of Organizational Behavior*, 38 (2), pp. 163-183

Dechurch, L. A., Hiller, N. J., Murase, T., Doty, D. & Salas, E. (2010) 'Leadership across levels: Levels of leaders and their levels of impact'. *The Leadership Quarterly*, 21 (6), pp. 1069-1085.

Delamont, S. & Hamilton, D. (1984) 'Revisiting classroom research: a continuing cautionary tale', in Delamont, S. (ed.) *Readings on interaction in the classroom*. London: Methuen & Co. Ltd, pp. 3-24.

Denti, L. & Hemlin, S. (2012) 'Leadership And Innovation In Organizations: A Systematic Review Of Factors That Mediate Or Moderate The Relationship'. *International Journal of Innovation Management*, 16 (3), pp. 1240007-1240020.

Denton, D. A., Newton, J. T. & Bower, E. J. (2008) 'Occupational burnout and work engagement: a national survey of dentists in the United Kingdom'. *British Dental Journal*, 205 (7), pp. E13.

de Zulueta, P. (2015). 'Developing compassionate leadership in health care: an integrative review.' *Journal of Healthcare Leadership*, 8, pp.1-10

Dickinson, H. & Ham, C. (2008) 'Engaging doctors in leadership : review of the literature'. University of Birmingham. Available at: <https://hdas.nice.org.uk/strategy/129631/2/HMIC/39734>. (accessed 23rd November 2016).

Bibliography

Doniger, S. B. (2013) 'Team Leadership from a Woman Dentist's Perspective'. *Ontario Dentist*, 90 (7), pp. 34-36.

Downing, S. M. (2003) 'Validity: on meaningful interpretation of assessment data'. *Medical Education*, 37 (9), pp. 830-837.

Drisko, J. W. (2005) 'Writing up qualitative research'. *Families in Society: The Journal of Contemporary Social Services*, 86 (4), pp. 589-593.

Duncan, E., A, S; & Nicol, M., M (2004) 'Subtle Realism and Occupational Therapy: An Alternative Approach to Knowledge Generation and Evaluation'. *British Journal of Occupational Therapy*, 67 (10), pp. 453-456.

Dwyer, S. C. & Buckle, J. L. (2009) 'The Space Between: On Being an Insider-Outsider in Qualitative Research'. *International Journal of Qualitative Methods*, 8 (1), pp. 54-63.

Eagly, A. H. (2005) 'Achieving relational authenticity in leadership: Does gender matter?'. *The Leadership Quarterly*, 16 (3), pp. 459-474.

Edwards, A. (2011) 'Cultural Historical Activity theory, British Educational Research Association on-line resource'. *BERA*. [Online]. Available at: <https://www.bera.ac.uk/researchers-resources/publications/cultural-historical-activity-theory-chat> (Accessed: 23rd October 2016).

Eisenhardt, K. M. (1989) 'Building Theories from Case Study Research'. *The Academy of Management Review*, 14 (4), pp. 532-550.

Ellingson, L. L. (2009) 'Engaging Crystallization in Qualitative Research'. Los Angeles: Sage Publishing

Emerson, R. M., Fretz, R. I. & Shaw, L. L. (2011) 'Writing ethnographic fieldnotes'. Chicago: The University of Chicago Press.

Engestrom, Y. (2000) 'Activity theory as a framework for analyzing and redesigning work'. *Ergonomics*, 43 (7), pp. 960-974.

Bibliography

Engestrom, Y. (2011) 'Activity Theory and Learning At Work', in Malloch, M., Cairns, L., Evans, K. and O'Connor, B. (eds.) *The SAGE Handbook of Workplace Learning*. London: SAGE Publications Ltd, pp. 86-104.

Engestrom, Y. & Young, M. (2001) 'Expansive Learning at Work: Toward an Activity Theoretical Reconceptualization. [and] Contextualising a New Approach To Learning: Some Comments on Yrjo Engestrom's Theory of Expansive Learning'. *Journal of Education and Work*, 14 (1), pp. 133-156,157-161.

Epitropaki, O., Kark, R., Mainemelis, C. & Lord, R. G. (2017) 'Leadership and followership identity processes: A multilevel review'. *The Leadership Quarterly*, 28 (1), pp. 104-129

Epstein, R. M. & Hundert, E. M. (2002) 'Defining and Assessing Professional Competence'. *JAMA*, 287 (2), pp. 226-235.

Eva, K. W., Bordage, G., Campbell, C., Galbraith, R., Ginsburg, S., Holmboe, E. & Regehr, G. (2016) 'Towards a Program of Assessment for Health Professionals: From Training into Practice'. *Advances in Health Sciences Education*, 21 (4), pp. 897-913.

Field, J. C., Cowpe, J. G. & Walmsley, A. D. (2017) 'The Graduating European Dentist: A New Undergraduate Curriculum Framework'. *European Journal of Dental Education*, 21 (S1), pp. 2-10.

Field, J. C., Delap, E. & Manzanares Cespedes, M. C. (2017) 'The Graduating European Dentist—Domain II: Safe and Effective Clinical Practice'. *European Journal of Dental Education*, 21 (S1), pp. 14-17.

Finlay, L. (2002) 'Negotiating the swamp: the opportunity and challenge of reflexivity in research practice'. *Qualitative Research*, 2 (2), pp. 209-230.

Flyvbjerg, B. (2006) 'Five Misunderstandings About Case-Study Research'. *Qualitative Inquiry*, 12 (2), pp. 219-245.

Bibliography

FMLM (2016) 'Leadership and Management Standards for Medical Professionals (2nd edition)'. Available at: <https://www.fmlm.ac.uk/individual-standards> (Accessed: 16th December 2016).

FMLM (2018) 'Medical leadership and management - an indicative undergraduate curriculum'. Available at: <https://www.fmlm.ac.uk/news-opinion/launch-of-indicative-undergraduate-curriculum> (Accessed: 12th January 2019)

Fook, C. Y. & Sidhu, G. K. (2010) 'Authentic Assessment and Pedagogical Strategies in Higher Education'. *Journal of Social Sciences*, 6 (2), pp. 153-161.

Forsyth, R., Carroll, K. & Reitano, P. (2009) 'Introduction: illuminating everyday realities: the significance of video methods for social science and health research'. *International Journal of Multiple Research Approaches*, 3 (3), pp. 214-217.

Fox, S. (2006) 'Inquiries of every imaginable kind': ethnomethodology, practical action and the new socially situated learning theory'. *Sociological Review*, 54 (3), pp. 426-445.

Francis, R (2013) Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry. London: The Stationery Office. Available at: <https://webarchive.nationalarchives.gov.uk/20150407084231/http://www.midstaffspublicinquiry.com/report> (Accessed: 24/02/2018)

Frank, J. R., Snell, L. S., Cate, O. T., Holmboe, E. S., Carraccio, C., Swing, S. R., Harris, P., Glasgow, N. J., Campbell, C., Dath, D., Harden, R. M., Iobst, W., Long, D. M., Mungroo, R., Richardson, D. L., Sherbino, J., Silver, I., Taber, S., Talbot, M. & Harris, K. A. (2010) 'Competency-based medical education: theory to practice'. *Medical Teacher*, 32 (8), pp. 638-645.

Fraser, S. W. & Greenhalgh, T. (2001) 'Coping with complexity: educating for capability'. *BMJ*, 323 (7316), pp. 799.

Bibliography

Freeman, R., Gorter, R. & Braam, A. (2004) 'Dentists interacting and working with female dental nurses: a qualitative investigation of gender differences in primary dental care'. *British Dental Journal*, 196 (3), pp. 161.

Gardner, W. L., Coglisier, C. C., Davis, K. M. & Dickens, M. P. (2011) 'Authentic leadership: A review of the literature and research agenda'. *The Leadership Quarterly*, 22 (6), pp. 1120-1145.

Garfinkel, H. (1984) *Studies in ethnomethodology*. Cambridge, UK: Polity.

Garrubba, M., Harris, C. & Melder, A. (2011). 'Clinical Leadership. A literature review to investigate concepts, roles and relationships related to clinical leadership'. Monash Health.org. Available at: <https://www.tripdatabase.com/doc/5636421-Clinical-Leadership--A-literature-review-to-investigate-concepts--roles-and-relationships-related-to#content>. (Accessed 25/11/2016)

GDC (2013) 'Standards for the Dental Team'. London: General Dental Council.

GDC (2015) 'Preparing for Practice: Dental team learning outcomes for registration (2015 revised edition)'. London: General Dental Council.

GDC (2019) Benefits of becoming a reflective practitioner. Available at: https://www.gdc-uk.org/docs/default-source/reflective-practice/benefits-of-becoming-a-reflective-practitioner-joint-statement-2019.pdf?sfvrsn=3c546751_2

George, B. (2003) 'Authentic leadership: Rediscovering the secrets to creating lasting value'. Jossey-Bass.

Germain, P. & Cummings, G. (2010). 'The influence of nursing leadership on nurse performance: A systematic literature review.' *Journal of Nursing Management* 18(4), pp. 425-439.

Gibbs, G. (1988) 'Learning by doing : a guide to teaching and learning methods'. London : Further Education Unit.

Gibson, B., Freeman, R. & Ekins, R. (1999) 'The role of the dental nurse in general practice'. *British Dental Journal*, 186 (5), pp. 213.

Bibliography

Gill, J., Mills, J., Franzway, S. & Sharp, R. (2008) 'Oh you must be very clever!' High-achieving women, professional power and the ongoing negotiation of workplace identity'. *Gender and Education*, 20 (3), pp. 223-236.

Gilmartin, M. & D'Aunno, T. (2007). 'Leadership research in healthcare A review and roadmap.' *The Academy of Management Annals* 1(1), pp. 387-438.

GMC (2018) 'Outcomes for Graduates (Tomorrows Doctors)'. London: General Medical Council.

GMC (2015) 'Outcomes for Graduates (Tomorrows Doctors)'. London: General Medical Council.

GMC (2012). 'Leadership and Management for all doctors'. London, General Medical Council.

Golafshani, N. (2003) 'Understanding Reliability and Validity in Qualitative Research.'. *The Qualitative Report*, 8 (4), pp. 597-606.

Goleman, D. (1998) 'The Emotional Intelligence of Leaders'. *Leader to Leader*, 1998 (10), pp. 20-26.

Gordon, L., Rees, C., Ker, J. & Cleland, J. (2017) 'Using Video-Reflexive Ethnography to Capture the Complexity of Leadership Enactment in the Healthcare Workplace'. *Advances in Health Sciences Education*, 22 (5), pp. 1101-1121.

Grant, A. M. (2007) 'Enhancing coaching skills and emotional intelligence through training'. *Industrial and Commercial Training*, 39 (5), pp. 257.

Green, H. E. (2014) 'Use of theoretical and conceptual frameworks in qualitative research'. *Nurse researcher*, 21 (6), pp. 34-38.

Greenleaf, R. K. (1970) 'The servant as leader.' Cambridge, Mass.: Center for Applied Studies.

Bibliography

Guetterman, T. C. (2015) 'Descriptions of Sampling Practices Within Five Approaches to Qualitative Research in Education and the Health Sciences'. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 16 (2)

Haig, A. & Dozier, M. (2003). 'BEME Guide no 3: systematic searching for evidence in medical education--Part 1: Sources of information.' *Medical teacher* 25(4), pp. 352 – 363

Hammersley, M. (1992) 'What is wrong with ethnography? : methodological explorations'. London: London : Routledge.

Hammersley, M. & Atkinson, P. (2007) 'Ethnography: Principles in Practice Third Edition'. Routledge Ltd - M.U.A.

Hanks, S., Coelho, C. & Coster, R. (2018) 'Prepared for practice and equipped for employment: what do dental foundation trainers think of their trainees?'. *British Dental Journal*, 225 (6), pp. 549-555.

Hanks, S. & Neve, H. (2016) 'Ensuring students' preparedness for practice: a reflective framework for assessing capability'. *EBMA Annual Academic Conference: Crossing Boundaries Assessment in Medical Education* University of Exeter, UK: 14-15 October.

Hardacre, J., Cragg, R., Shapiro, J., Spurgeon, P. & Flanagan, H. (2011) 'What's leadership got to do with it? Exploring links between quality improvement and leadership in the NHS'. The Health Foundation. Available at: <http://www.health.org.uk/publication/whats-leadership-got-do-it> (Accessed: 23/11/2016).

Harden, R. (1999) What is a spiral curriculum? *Medical Teacher*, 21:2, 141-143

Hartley, J., Martin, J. & Benington, J. (2008) *Leadership in Healthcare: a review of the literature for health care professionals, managers and researchers*. Institute of Governance and Public Management (IGPM) Warwick Business School Available at: http://www.netscc.ac.uk/hsdr/files/project/SDO_FR_08-1601-148_V01.pdf.

Bibliography

Hashim, N. H. & Kones, M. L. (2007) 'Activity theory: a framework for qualitative analysis'. *4th International Qualitative Research Convention (QRC)*. PJ Hilton, Malaysia: 3-5 September.

Hater, J. J. & Bass, B. M. (1988) 'Superior's Evaluations and Subordinates' Perceptions of Transformational and Transactional Leadership'. *Journal of Applied Psychology*, 73 (4), pp. 695-702.

Haver, A., Akerjordet, K. & Furunes, T. (2013) 'Emotion regulation and its implications for leadership: An integrative review and future research agenda'. *Journal of Leadership & Organizational Studies*, 20 (3), pp. 287-303.

Hawkins, R. E., Welcher, C. M., Holmboe, E. S., Kirk, L. M., Norcini, J. J., Simons, K. B. & Skochelak, S. E. (2015) 'Implementation of competency-based medical education: are we addressing the concerns and challenges?' *Medical Education*, 49(11):1086-1102

Hawkins-Waters, L.-A. (2013) 'Drawing on knowledge to plan activity theory to aid facilitators' knowledge articulation'. PhD Thesis. Available at: <http://hdl.cqu.edu.au/10018/1013716> (Accessed: 23rd February 2017)

Heath, C., Hindmarsh, J. & Luff, P. (2010) 'Video in qualitative research : analysing social interaction in everyday life'. Los Angeles, [Calif.] London: SAGE.

Held, S. & McKimm, J. (2011) 'Emotional intelligence, emotional labour and affective leadership', in Preedy, M., Bennett, N. and Wise, C. (eds.) *Educational Leadership: Context, Strategy and Collaboration*. Open University/Sage, pp. 52-64.

Higgins JPT, Green S (editors) (2011) 'Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0' [updated March 2011]. The Cochrane Collaboration, 2011. Available from www.handbook.cochrane.org

Hill, K., Burke, F., Brown, J., Macdonald, E., Morris, A., White, D. & Murray, K. (2010) 'Dental practitioners and ill health retirement: a qualitative investigation into the causes and effects'. *British Dental Journal*, 209 (5), pp.E8

Bibliography

Hodges, B. D., Ginsburg, S., Cruess, R., Cruess, S., Delpont, R., Hafferty, F., Ho, M.-J., Holmboe, E., Holtman, M., Ohbu, S., Rees, C., Ten Cate, O., Tsugawa, Y., Van Mook, W., Wass, V., Wilkinson, T. & Wade, W. (2011) 'Assessment of professionalism: Recommendations from the Ottawa 2010 Conference'. *Medical Teacher*, 33 (5), pp. 354-363.

Holm, A. & Severinsson, E. (2014). 'Effective nursing leadership of older persons in the community—A systematic review.' *Journal of Nursing Management* 22(2), pp. 211-224.

Holmboe, E. S., Sherbino, J., Long, D. M., Swing, S. R. & Frank, J. R. (2010) 'The role of assessment in competency-based medical education'. *Medical Teacher*, 32 (8), pp. 676.

Holstein, J. & Gubrium, J. (2004) 'The Active Interview', in Silverman, D. (ed.) *Qualitative research : theory, method and practice*. 2nd ed. edn. Thousand Oaks, CA: Sage Publications.

Holt, V. P. (2008) 'The need for leadership and vision in dentistry. A personal view'. *Primary Dental Care*, 15 (3), pp. 113-119.

Hopkins, M. & O'Neil, D. (2015) 'Authentic leadership: application to women leaders'. *Frontiers in Psychology*, 6, 959.

Hostgaard, A. M. B. & Bertelsen, P. (2012) 'Using video observation to gain insight into complex clinical work practices'. *Studies in Health Technology and Informatics*, 180 pp. 378- 382.

Howieson, B. & Thiagarajah, T. (2011) 'What is clinical leadership? A journal based meta-review'. *The Interational Journal of Clinical Leadership*, 17 (1), pp. 7-18.

Huang, A. X., Hughes, T. L., Sutton, L. R., Lawrence, M., Chen, X., Ji, Z. & Zeleke, W. (2017) 'Understanding the Self in Individuals with Autism Spectrum Disorders (ASD): A Review of Literature'. *Frontiers in Psychology*, 8, article 1422

Bibliography

Huynh, H. P. & Sweeny, K. (2014) 'Clinician styles of care: transforming patient care at the intersection of leadership and medicine'. *Journal of Health Psychology*, 19 (11), pp. 1459-1470.

Iedema, R. (2011) 'Creating safety by strengthening clinicians' capacity for reflexivity'. *BMJ Quality & Safety*, 20 (Suppl 1), pp. 183-186.

Iedema, R., Long, D., Forsyth, R. & Lee, B. B. (2006) 'Visibilising clinical work: Video ethnography in the contemporary hospital'. *Health Sociology Review*, 15 (2), pp. 156 - 168.

Iedema, R., Merrick, E. T., Rajbhandari, D., Gardo, A., Stirling, A. & Herkes, R. (2009) 'Viewing the taken-for-granted from under a different aspect: a video-based method in pursuit of patient safety.(Report)'. *International Journal of Multiple Research Approaches*, 3 (3), pp. 290-301.

Iedema, R., Carroll, K., Collier, A., Hor, S.-y., Mesman, J. & Wyer, M. (2019) 'Video-Reflexive Ethnography in Health Research and Healthcare Improvement: Theory and Application'. CRC Press.

Illing, J. C., Morrow, G. M., Rothwell Nee Kergon, C. R., Burford, B. C., Baldauf, B. K., Davies, C. L., Peile, E. B., Spencer, J. A., Johnson, N., Allen, M. & Morrison, J. (2013) 'Perceptions of UK medical graduates' preparedness for practice: a multi-centre qualitative study reflecting the importance of learning on the job'. *BMC Medical Education*, 13 (1), pp. 34 – 36

Imenda, S. (2014) 'Is There a Conceptual Difference between Theoretical and Conceptual Frameworks?'. *Journal of Social Sciences*, 38 (2), pp. 185-195.

Jabareen, Y. (2009) 'Building a Conceptual Framework: Philosophy, Definitions, and Procedure'. *International Journal of Qualitative Methods*, 8 (4), pp. 49-62.

Jeon, Y. H., Merlyn, T. & Chenoweth, L. (2010). 'Leadership and management in the aged care sector: A narrative synthesis.' *Australasian Journal on Ageing* 29(2), pp. 54-60.

Bibliography

Jewitt, C. (2012) 'An Introduction to Using Video for Research. National Centre for Research Methods Working Paper'. [Working paper] *National Centre for Research Methods & Economic and Social Research Council*. Available at: <http://eprints.ncrm.ac.uk/2259/> (Accessed: 12th July 2016).

Johnston, J. & Dornan, T. (2015) 'Activity theory: mediating research in medical education', in Cleland, J. and Durning, S. (eds.) *Researching Medical Education*. Wiley-Blackwell, pp. 93-102.

Jonsen, K., Maznevski, M. L. & Schneider, S. C. (2010) 'Gender differences in leadership - believing is seeing: implications for managing diversity'. *Equality, Diversity and Inclusion: An International Journal*, 29 (6), pp. 549-572.

Judge, T. A., Ilies, R., Bono, J. E. & Gerhardt, M. W. (2002) 'Personality and Leadership: A Qualitative and Quantitative Review'. *Journal of Applied Psychology*, 87 (4), pp. 765-780.

Judge, T. A. & Piccolo, R. F. (2004) 'Transformational and Transactional Leadership: A Meta-Analytic Test of Their Relative Validity'. *Journal of Applied Psychology*, 89 (5), pp. 755-768.

Judge, T. A., Piccolo, R. F. & Kosalka, T. (2009) 'The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm'. *The Leadership Quarterly*, 20 (6), pp. 855-875.

Kane, M., Crooks, T. & Cohen, A. (1999) 'Validating Measures of Performance'. *Educational Measurement: Issues and Practice*, 18 (2), pp. 5-17.

Kay, E. J. & Lowe, J. C. (2008) 'A survey of stress levels, self-perceived health and health-related behaviours of UK dental practitioners in 2005'. *British Dental Journal*, 204 (11), pp. E19.

Kemp, M. & Edwards, H. (2014) 'Sources of Work-related Stress among Salaried Primary Care Dentists in the UK' London, UK: BDA. Available at: <https://bda.org/dentists/policy->

campaigns/campaigns/Documents/Sources%20of%20stress%20among%20salaried%20dentists.pdf (Accessed: 13th February 2019).

Khoshhal, K. & Guraya, S. (2016). 'Leaders produce leaders and managers produce followers: A systematic review of the desired competencies and standard settings for physicians' leadership.' *Saudi Medical Journal* 37(10), pp. 1061-1067.

King's Fund (2011) 'The future of leadership and management in the NHS: No more heroes'. The King's Fund Commission on Leadership and Management in the NHS. UK, King's Fund. Available at: www.kingsfund.org.uk/publications (Accessed: 20th February 2015).

King's Fund (2012) 'Leadership and engagement for improvement in the NHS: Together we can.' UK, King's Fund. Available at: www.kingsfund.org.uk/publications (Accessed: 20th February 2015).

King's Fund (2013). 'Patient-centred leadership: Rediscovering our purpose.' UK, King's Fund. Available at: www.kingsfund.org.uk/publications (Accessed: 20th February 2015).

King's Fund (2014) 'Culture and leadership in the NHS: The King's Fund 2014 survey'. UK. Available at: https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/survey-culture-leadership-nhs-may2014.pdf. (Accessed: 20th February 2015).

Kirkpatrick, S. A. & Locke, E. A. (1991) 'Leadership: do traits matter?'. *The Executive* 5(2), pp. 48-60.

Kolb, D. A. (1984) 'Experiential learning : experience as the source of learning and development'. London: Englewood Cliffs, Prentice-Hall.

Krathwohl, D. R. (2002) 'A Revision of Bloom's Taxonomy: An Overview'. *Theory Into Practice*, 41 (4), pp. 212.

Bibliography

Künzle, B., Kolbe, M. & Grote, G. (2010) 'Ensuring patient safety through effective leadership behaviour: A literature review'. *Safety Science*, 48 (1), pp. 1-17.

Kuoppala, J., Lamminpää, A., Liira, J. & Harri, V. (2008). 'Leadership, job well-being, and health effects—A systematic review and a meta-analysis.' *Journal of Occupational and Environmental Medicine* 50(8): 904-915.

Kyriakidou, O. (2011) 'Gender, management and leadership'. *Equality, Diversity and Inclusion: An International Journal*, 31 (1), pp. 4-9.

Larbie, J., Kemp, M. & Whitehead, P. (2017) 'The Mental Health and Well-being of UK Dentists: A Qualitative Study'. London: British Dental Association. 59 pp. Available at: <https://bda.org/about-the-bda/campaigns/Documents/The%20Mental%20Health%20and%20Well-being%20of%20UK%20Dentists.pdf> (Accessed: 05/06/2019).

Lave, J. (1991) 'Situating learning in communities of practice', in Resnick, L.B., Levine, J.M. and Teasley, S.D. (eds.) *Perspectives on Socially Shared Cognition*. American Psychological Association, pp. 63-82.

Lave, J. & Wenger, E. (1991) 'Situated Learning: Legitimate Peripheral Participation (Learning in Doing: Social, Cognitive and Computational Perspectives)'. Cambridge, UK: Cambridge University Press.

Lee, Y. J. (2011) 'More than just story-telling: cultural–historical activity theory as an under-utilized methodology for educational change research'. *Journal of Curriculum Studies*, 43 (3), pp. 403-424.

Lemaire, J. B. & Wallace, J. E. (2017) 'Burnout among doctors'. *British Medical Journal*, 358

Levin, R. P. (2007) '10 Techniques for Becoming an Outstanding Leader'. *Compendium of Continuing Education in Dentistry*, 28 (11), pp. 626-627.

Bibliography

Lewis, N. J., Rees, C. E., Hudson, J. N. & Bleakley, A. (2005) 'Emotional Intelligence Medical Education: Measuring the Unmeasurable?'. *Advances in Health Sciences Education*, 10 (4), pp. 339-355.

Lin, F., Chaboyer, W., Wallis, M. & Miller, A. (2013) 'Factors contributing to the process of intensive care patient discharge: An ethnographic study informed by activity theory'. *International Journal of Nursing Studies*, 50 (8), pp. 1054-1066.

Lincoln, Y. S. & Guba, E. G. (1985) 'Naturalistic inquiry'. ed. Guba, E.G., Thousand Oaks, CA: Sage Publications.

Lloyd-Walker, B. & Walker, D. (2011). 'Authentic leadership for 21st century project delivery. *International Journal of Project Management*, 29(4), pp 383-395.

Lord, R. G., De Vader, C. L. & Alliger, G. M. (1986) 'A Meta-Analysis of the Relation Between Personality Traits and Leadership Perceptions: An Application of Validity Generalization Procedures'. *Journal of Applied Psychology*, 71 (3), pp. 402-410.

Luthans, F. & Avolio, B. J. (2003) 'Authentic Leadership: A Positive Developmental Approach', in Cameron, K.S., Dutton, J.E. and Quinn, R.E. (eds.) *Positive Organizational Scholarship*. San Francisco: Barrett-Koehler, pp. 241-261.

Mann, K., Gordon, J. & MacLeod, A. (2009) 'Reflection and Reflective Practice in Health Professions Education: A Systematic Review'. *Advances in Health Sciences Education*, 14 (4), pp. 595-621.

Mannix, J., Wilkes, L. & Daly, J. (2013). 'Attributes of clinical leadership in contemporary nursing: An integrative review.' *Contemporary nurse*, 45(1), pp. 10-21.

Martins, D. C. (2008) 'Experiences of homeless people in the health care delivery system: a descriptive phenomenological study'. *Public Health Nursing*, 25 (5), pp. 420-430.

Massie, S. (2015). 'Talent management. Developing leadership not just leaders'. UK, King's Fund. Available at: www.kingsfund.org.uk/publications (Accessed: 12th December 2016).

Bibliography

Maxwell, J. A. (2013) 'Qualitative research design : an interactive approach'. 3rd edn. Los Angeles, [Calif.] London: SAGE.

Maxwell, J. A. & Chmiel, M. (2014) 'Generalization in and from Qualitative Analysis', in Flick, U. (ed.) *The SAGE Handbook of Qualitative Data Analysis*. London: SAGE Publications Ltd, pp. 540-533.

Mayer, J. D. & Salovey, P. (1993) 'The intelligence of emotional intelligence'. *Intelligence*, 17 (4), pp. 433-442.

Mayer, J. D., Salovey, P. & Caruso, D. R. (2008) 'Emotional Intelligence: New Ability or Eclectic Traits?'. *American Psychologist*, 63 (6), pp. 503-517.

Maynard, D. W. (1989) 'On the ethnography and analysis of discourse in institutional settings'. *Perspectives on Social Problems*, 1 pp. 127-146.

McGregor, D. (2000) 'The Human Side of Enterprise'. *Reflections*, 2 (1), pp. 6-15.

McGurk, P. (2009) 'Developing "middle leaders" in the public services? The realities of management and leadership development for public managers'. *International Journal of Public Sector Management*, 22 (6), pp. 464-477.

McKimm, J. & Swanwick, T. (2014) 'Educational Leadership', in Swanwick, T. (ed.) *Understanding medical education evidence, theory and practice*. Second edition. John Wiley & Sons, Incorporated, pp. 473-492.

McKimm, J. & O' Sullivan, H. (2016) 'When I say ... leadership'. *Medical Education*, 50 (9), pp. 896-897.

McKimm, J. & Swanwick, T. (2009) 'Setting learning objectives'. *British Journal of Hospital Medicine*, 70 (7), pp. 406-409.

McKimm, J. & Swanwick, T. (2011) 'Leadership development for clinicians: what are we trying to achieve?'. *Clinical Teacher*, 8 (3), pp. 181-185.

Mennin, S. (2010) 'Self-organisation, integration and curriculum in the complex world of medical education'. *Medical Education*, 44 (1), pp. 20-30.

Bibliography

Moher, D., Liberati, A., Tetzlaff, J. & Altman, D. (2009). 'Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement.' *PLOS Medicine*, 6 (7), e1000097.

Monrouxe, L., Bullock, A., Cole, J., Gormley, G., Kaufhold, K., Kelly, N., Mattick, K., Rees, C. & Scheffler, G. (2014) *How Prepared are UK Medical Graduates for Practice?: Final report from a programme of research commissioned by the General Medical Council.*

Moon, J. A. (2006) 'A handbook of reflective and experiential learning theory and practice'. ed. MyLibrary, Reflective and experiential learning. London: New York : Routledge.

Moore, D., Saleem, S., Hawthorn, E., Pealing, R., Ashley, M. & Bridgman, C. (2015). 'Healthy gums do matter: A case study of clinical leadership within primary dental care.' *British Dental Journal*, 219 (6), pp. 255-259.

Moore, R. (2011) 'Occupational stress among dentists', in Langan-Fox, J. and Cooper, C.L. (*Handbook of Stress in the Occupations*. Cheltenham, UK: Elgar, E, pp. 107-132.

Morison, S. & McMullan, C. (2013). 'Preparing for the future: challenges and opportunities for management and leadership skills.' *British Dental Journal*, 214 (1), E2-E2.

Morse, J., M. , Barrett, M., Mayan, M., Olson, K. & Spiers, J. (2002) 'Verification Strategies for Establishing Reliability and Validity in Qualitative Research'. *International Journal of Qualitative Methods*, 1 (2), pp. 13-22.

Muethel, M. & Hoegl, M. (2013) 'Shared leadership effectiveness in independent professional teams'. *European Management Journal*, 31 (4), pp. 423-432.

Myers, H. L. & Myers, L. (2004) 'It's difficult being a dentist': stress and health in the general dental practitioner'. *British Dental Journal*, 197 (2), pp. 89-93.

Bibliography

Myers, M. (2000) 'Qualitative Research and the Generalizability Question: Standing Firm with Proteus'. *The Qualitative Report*, 4 (3): article 9

Nalliah, R. P. (2016) 'Do dentists make poor leaders?'. *British Dental Journal*, 220 (8), pp. 389-391.

Narimani, M., Ahari, S. S., Homeily, N. & Siahpoosh, H. (2009) 'A Comparison of Emotional Intelligence and Behavior Problems in Dyslexic and Non-Dyslexic Boys'. *Journal of Applied Sciences*, 9 (7), pp. 1388-1392.

Neve, H. & Hanks, S. (2016) 'When I say ... capability'. *Medical Education*, 50 (6), pp. 610-611.

Nguyen, Q. D., Fernandez, N., Karsenti, T. & Charlin, B. (2014) 'What is reflection? A conceptual analysis of major definitions and a proposal of a five-component model'. *Medical Education*, 48 (12), pp. 1176-1189.

NHS (2016) 'About'. *NHS Leadership Academy*. [Online]. Available at: <http://www.leadershipacademy.nhs.uk/about/> (Accessed: 28/11/2016).

NHS (2010) 'Medical Leadership Competency Framework. 3rd Edition'. *NHS Institute for Innovation and Improvement & Academy of Medical Royal Colleges*. [Online]. Available at: <https://www.leadershipacademy.nhs.uk/wp-content/uploads/2012/11/NHSLeadership-Leadership-Framework-Medical-Leadership-Competency-Framework-3rd-ed.pdf> (Accessed: 23/11/ 2014).

NHS (2012) 'Clinical Leadership Competency Framework'. NHS Leadership Academy.

NHS (2013) 'Healthcare Leadership model v1.0'. NHS Leadership Academy.

NHS Improvement (2016) 'Developing People Improving Care'. Available at: https://improvement.nhs.uk/uploads/documents/Developing_People-Improving_Care-010216.pdf (Accessed: 16/01/2017).

Bibliography

NHS Improvement (2016a) 'Improvement on clinical staff shortages. A workforce analysis'. Available at: <https://www.gov.uk/government/publications/evidence-from-nhs-improvement-on-clinical-staff-shortages> (Accessed: 21/09/2018).

Nicol, D. & Macfarlane-Dick, D. (2006) 'Formative assessment and self-regulated learning: a model and seven principles of good feedback practice'. *Studies in Higher Education*, 31 (2), pp. 199-218.

Nicolson, P., Rowland, E., Lokman, P., Fox, R., Gabriel, Y., Heffernan, K., Howorth, C., Ilan-Clarke, Y. & Smith, G. (2011) 'Leadership and Better Patient Care: Managing in the NHS. Final report.' *NIHR Service Delivery and Organisation programme*. Available at: http://www.netscc.ac.uk/hsdr/files/project/SDO_FR_08-1601-137_V01.pdf (Accessed: 16/12/2016).

Nielsen, J., Clemmensen, T. & Yssing, C. (2002) 'Getting access to what goes on in people's heads?: reflections on the think-aloud technique'. *Proceedings of the second Nordic conference on Human-computer interaction*. Aarhus, Denmark: ACM, pp 101-110.

Nienaber, H. (2010) 'Conceptualisation of management and leadership'. *Management Decision*, 48 (5), pp. 661-675.

Norcini, J. J. (2003) 'Work based assessment'. *British Medical Journal*, 326 (7392), pp. 753-755.

Norcini, J. J. & McKinley, D. W. (2007) 'Assessment Methods in Medical Education'. *Teaching and Teacher Education: An International Journal of Research and Studies*, 23 (3), pp. 239-250.

Northouse, P. G. (2010) 'Leadership : theory and practice'. 6th ed. edn. Thousand Oaks: Sage Publications.

NMC (2019) 'Future nurse: Standards of proficiency for registered nurses'. *Nursing and Midwifery Council*. Available at: <https://www.nmc.org.uk/standards/standards-for-nurses/> (Accessed: 01/012019).

Bibliography

O'Connell, J., Gardner, G. & Coyer, F. (2014) 'Beyond competencies: using a capability framework in developing practice standards for advanced practice nursing'. *Journal of Advanced Nursing*, 70 (12), pp. 2728-2735.

O'Leary, Z. (2013) 'The essential guide to doing your research project'. 2nd revised edn. London Sage Publications Ltd.

Opoku, A. & Williams, N. (2018) 'Second-generation gender bias: An exploratory study of the women's leadership gap in a UK construction organisation'. *International Journal of Ethics and Systems*, 35 (1), pp. 2-23.

O'Riordan, C. & McDermott, A. (2012) 'Clinical managers in the primary care sector: do the benefits stack up?'. *Journal of Health Organization and Management*, 26 (5), pp. 621-640.

O'Selmo, E., Collin, V. & Whitehead, P. (2018) 'Associates and their working environment: a comparison of corporate and non-corporate associates'. *British dental journal*, 225 (5), pp. 425.

Parris, D. & Peachey, J. (2013). 'A Systematic Literature Review of Servant Leadership Theory in Organizational Contexts.' *Journal of Business Ethics* 113 (3), pp. 377-393.

Passi, V., Doug, M., Peile, E., Thistlethwaite, J. & Johnson, N. (2010) 'Developing medical professionalism in future doctors: a systematic review'. *International Journal of Medical Education*, 1 pp. 19-29.

Patton, M. Q. (1999) 'Enhancing the Quality and Credibility of Qualitative Analysis'. *Health Services Research*, 34 (5 pt 2), pp. 1189.

Peate, I. (2011) 'Developing leadership and management skills'. *Dental Nursing*, 7 (9), pp. 523-527.

Peng, H. & Pierce, J. (2015) 'Job- and organization-based psychological ownership: relationship and outcomes'. *Journal of Managerial Psychology*, 30 (2), pp. 151-168.

Pink, S. (2013) 'Doing Visual Ethnography'. 3rd edn. London: Sage Publications Ltd.

Bibliography

Ploettner, J. & Tresseras, E. (2016) 'An interview with Yrjö Engeström and Annalisa Sannino on activity theory'. *Bellaterra Journal of Teaching & Learning Language & Literature*, 9 (4), pp. 87-98.

Polit, D. F. & Beck, C. T. (2010) 'Generalization in quantitative and qualitative research: Myths and strategies'. *International Journal of Nursing Studies*, 47 (11), pp. 1451-1458.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K. & Duffy, S. (2006) 'Guidance on the Conduct of Narrative Synthesis in Systematic Reviews A Product from the ESRC Methods Programme'. ESRC. Available at: https://www.researchgate.net/profile/Mark_Rodgers4/publication/233866356_Guidance_on_the_conduct_of_narrative_synthesis_in_systematic_reviews_A_product_from_the_ESRC_Methods_Programme/links/02e7e5231e8f3a6183000000/Guidance-on-the-conduct-of-narrative-synthesis-in-systematic-reviews-A-product-from-the-ESRC-Methods-Programme.pdf (Accessed: 12/12/2016).

Pope, C. (2005) 'Conducting ethnography in medical settings'. *Medical Education*, 39 (12), pp. 1180-1187.

Porcelli, A. J. & Delgado, M. R. (2017) 'Stress and decision making: effects on valuation, learning, and risk-taking'. *Current Opinion in Behavioral Sciences*, 14 pp. 33-39.

Posner, M. I. & Rothbart, M. K. (2000) 'Developing mechanisms of self-regulation'. *Develop. Psychopathol.*, 12 (3), pp. 427-441.

Postholm, M. B. (2008) 'Cultural historical activity theory and Dewey's idea-based social constructivism: Consequences for Educational Research'. *Outlines : Critical Practice Studies*, 10 (1), pp. 37-48.

Postholm, M. B. (2015) 'Methodologies in Cultural–Historical Activity Theory: The example of school-based development'. *Educational Research*, 57 (1), pp. 43-58.

Bibliography

Pulkkinen, L. & Ronka, A. (1994) 'Personal control over development, identity formation, and future orientation as components of life orientation: a developmental approach. (Development Across the Life Span)'. *Developmental Psychology*, 30 (2), pp. 260.

Pusic, M. V., Santen, S. A., Dekhtyar, M., Poncelet, A. N., Roberts, N. K., Wilson-Delfosse, A. L. & Cutrer, W. B. (2018) 'Learning to balance efficiency and innovation for optimal adaptive expertise'. *Medical Teacher*, 40 (8), pp. 820-827.

Rajah, R., Song, Z. & Arvey, R. D. (2011) 'Emotionality and leadership: Taking stock of the past decade of research'. *The Leadership Quarterly*, 22 (6), pp. 1107-1119.

Ray, B. (2017) 'Educational Leadership Coaching as Professional Development'. *School Leadership Review*, 12 (1), pp. 29-38.

Rethans, J., Norcini, J. J., Barón-Maldonado, M., Blackmore, D., Jolly, B. C., Laduca, T., Lew, S., Page, G. G. & Southgate, L. H. (2002) 'The relationship between competence and performance: implications for assessing practice performance'. *Medical Education*, 36 (10), pp. 901-909.

Richards, L. (2009) 'Handling qualitative data : a practical guide'. 2nd ed. edn. Los Angeles [Calif.]: SAGE.

Richardson, A. & Storr, J. (2010). 'Patient safety: a literature [corrected] review on the impact of nursing empowerment, leadership and collaboration.' *International Nursing Review*, 57 (1), pp. 12-21.

Roth, W.-M. & Lee, Y.-J. (2007) "'Vygotsky's Neglected Legacy": Cultural-Historical Activity Theory'. *Review of Educational Research*, 77 (2), pp. 186-232.

Ryan, R. (2013) 'Cochrane Consumers and Communication Review Group: data synthesis and analysis'. *Cochrane Consumers and Communication Review Group*. Available at: <http://cccr.org>, (Accessed: 22/01/2017).

Sacks, H. (1985) 'On doing "being ordinary"', in Atkinson, J.M. (ed.) *Structures of Social Action*. Cambridge: Cambridge University Press, pp. 413-429.

Bibliography

Sadler, D. R. (1989) 'Formative Assessment and the Design of Instructional Systems'. *Instructional Science*, 18 (2), pp. 119-144.

Sako, E. (2016) 'The Emotional and Social Effects of Dyslexia'. *European Journal of Interdisciplinary Studies*, 2 (2), pp. 231-239.

Saldaña, J. (2013) 'The coding manual for qualitative researchers'. 2nd ed. edn. London, Thousand Oaks, CA: SAGE.

Sandars, J. (2009) 'The use of reflection in medical education: AMEE Guide No. 44'. *Medical Teacher*, 31 (8), pp. 685-695.

Sandelowski, M. (1998) 'Writing a good read: Strategies for re-presenting qualitative data'. *Research in Nursing & Health*, 21 (4), pp. 375-382.

Sandelowski, M. & Leeman, J. (2012) 'Writing usable qualitative health research findings'. *Qualitative health research*, 22 (10), pp. 1404.

Schmutz, J., Manser, T. & Mahajan, R. P. (2013) 'Do team processes really have an effect on clinical performance? A systematic literature review'. *British Journal of Anaesthesia*, 110 (4), pp. 529-544.

Schön, D. A. (2007) 'The reflective practitioner : how professionals think in action'. Paperback ed. edn. Aldershot: Aldershot : Ashgate. 2007

Schoonheim-Klein, M. E., Habets, L. L. M. H., Aartman, I. H. A., Van Der Vleuten, C. P., Hoogstraten, J. & Van Der Velden, U. (2006) 'Implementing an Objective Structured Clinical Examination (OSCE) in dental education: effects on students' learning strategies'. *European Journal of Dental Education*, 10 (4), pp. 226-235.

Schuwirth, L. W. T. & Van der Vleuten, C. P. M. (2011) 'Programmatic assessment: From assessment of learning to assessment for learning'. *Medical Teacher*, 33 (6), pp. 478-485.

Schuwirth, L. W. T. & Van Der Vleuten, C. P. M. (2012) 'Programmatic assessment and Kane's validity perspective'. *Medical Education*, 46 (1), pp. 38-48.

Bibliography

Shamir, B. (2011) 'Leadership takes time: Some implications of (not) taking time seriously in leadership research'. *The Leadership Quarterly*, 22 (2), pp. 307-315

Sharma, S. (2010) 'Leadership and management: Get organized, get started'. *Dental Nursing*, 6 (9), pp. 513-515.

Shaw, S., Crisp, V. & Johnson, N. (2012) 'A framework for evidencing assessment validity in large-scale, high-stakes international examinations'. *Assessment in Education: Principles, Policy & Practice*, 19 (2), pp. 159-176.

Silverman, D. (2006) 'Interpreting Qualitative Data'. 3rd edn. London SAGE Publications Ltd.

Silverman, D. (2010) 'Doing qualitative research : a practical handbook'. 3rd ed. edn. London: London : SAGE.

Sims, S., Hewitt, G. & Harris, R. (2015). 'Evidence of a shared purpose, critical reflection, innovation and leadership in interprofessional healthcare teams: a realist synthesis.' *Journal of Interprofessional Care*, 29 (3), pp. 209-215.

Smith, B. (2018) 'Generalizability in qualitative research: misunderstandings, opportunities and recommendations for the sport and exercise sciences'. *Qualitative Research in Sport, Exercise and Health*, 10 (1), pp. 137-149.

Solansky, S. T. (2010) 'The evaluation of two key leadership development program components: Leadership skills assessment and leadership mentoring'. *The Leadership Quarterly*, 21 (4), pp. 675-681.

Spillane, J. P., Halverson, R. & Diamond, J. B. (2001) 'Investigating School Leadership Practice: A Distributed Perspective'. *Educational Researcher*, 30 (3), pp. 23-28.

Stanley, D. (2006). 'In command of care: Toward the theory of congruent leadership.' *Journal of Research in Nursing*, 11 (2), pp. 132-144.

Stanley, D. (2006a). 'In command of care: clinical nurse leadership explored.' *Journal of Research in Nursing*, 11 (1), pp. 20-39.

Bibliography

Stanley, D. (2008). 'Congruent leadership: values in action.' *Journal of Nursing Management* 16 (5), pp. 519-524.

Stewart, H., Gapp, R., Harwood, Ian. (2017) 'Exploring the Alchemy of Qualitative Management Research: Seeking Trustworthiness, Credibility and Rigor Through Crystallization'. *The Qualitative Report*, 22 (1), pp. 1-19.

Storey, J. & Holti, R. (2013) 'Towards a New Model of Leadership for the NHS'. The Open University Business School. Available at:
<http://www.leadershipacademy.nhs.uk/wp-content/uploads/2013/05/Towards-a-New-Model-of-Leadership-2013.pdf>.

Sutton, R. I. (2010) 'True leaders are also true managers'. *Harvard Business Review*, 88 (7/8).

Swaffield, S. (2011) 'Getting to the heart of authentic Assessment for Learning'. *Assessment in Education: Principles, Policy & Practice*, 18 (4), pp. 433-449.

Swanwick, T. & McKimm, J. (2011). 'What is clinical leadership-and why is it important?' *The Clinical Teacher*, 8 (1), pp. 22-26

Thompson, N. & Pascal, J. (2012) 'Developing critically reflective practice'. *Reflective Practice*, 13 (2), pp. 311-325.

Tye, J. & Dent, B. L. (2017) 'From accountability to ownership', *Building a Culture of Ownership in Healthcare. The invisible Architecture of Core Values, Attitude and Self Empowerment*. Indianapolis, USA: Sigma Nursing, pp. 302.

Uhl-Bien, M., Riggio, R., Lowe, K. & Carsten, M. (2014). 'Followership theory: A review and research agenda.' *The Leadership Quarterly* 25 (1), pp. 83-104.

Uygur, J., Stuart, E., De Paor, M., Wallace, E., Duffy, S., O'shea, M., Smith, S. & Pawlikowska, T. (2019) 'A Best Evidence in Medical Education systematic review to determine the most effective teaching methods that develop reflection in medical students: BEME Guide No. 51'. *Medical Teacher*, 41 (1), pp. 3-16.

Bibliography

Van Der Vleuten, C. P. & Schuwirth, L. W. (2005) 'Assessing professional competence: from methods to programmes'. *Medical Education*, 39 (3), pp. 309-317.

Van der Vleuten, C. P. M., Schuwirth, L. W. T., Scheele, F., Driessen, E. W. & Hodges, B. (2010) 'The assessment of professional competence: building blocks for theory development'. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 24 (6), pp. 703-719.

VanVactor, J. D. (2012) 'Collaborative leadership model in the management of health care'. *Journal of Business Research*, 65 (4), pp. 555-561.

Vanderbroeck, P. & Wasserfallen, J.-B. (2017) 'Managing gender diversity in healthcare: getting it right'. *Leadership in Health Services*, 30 (1), pp. 92-100.

Vivekananda-Schmidt, P., Crossley, J. & Murdoch-Eaton, D. (2015) 'A model of professional self-identity formation in student doctors and dentists: a mixed method study'. *BMC medical education*, 15 (1), pp. 83.

Wald, H. (2015) 'Professional Identity (Trans)Formation in Medical Education: Reflection, Relationship, Resilience'. *Acad Med*, 90 (6), pp. 701-706.

Wald, H. S., Borkan, J. M., Taylor, J. S., Anthony, D. & Reis, S. P. (2012) 'Fostering and evaluating reflective capacity in medical education: developing the REFLECT rubric for assessing reflective writing'. *Academic medicine : Journal of the Association of American Medical Colleges*, 87 (1), pp. 41.

Walsh, J., Taylor, N., Hough, D. & Brocklehurst, P. (2015). 'A qualitative evaluation of a pilot leadership programme for dentists.' *Leadership in Health Services* 28 (3), pp. 185-199.

Walter, F., Humphrey, R. H. & Cole, M. S. (2012) 'Unleashing leadership potential:Toward an evidence-based management of emotional intelligence: Toward an evidence-based management of emotional intelligence'. *Organizational Dynamics*, 41 (3), pp. 212-219.

Bibliography

Wang, L., Law, K. S., Zhang, M. J., Li, Y. N. & Liang, Y. (2019) 'It's mine! Psychological ownership of one's job explains positive and negative workplace outcomes of job engagement'. *Journal of Applied Psychology*, 104 (2), pp. 229-246.

Warwick Institute of Employment Research. (2011) 'Models and principles of Activity Theory'. *Warwick University*. Available at: <https://warwick.ac.uk/fac/soc/ier/glacier/learning/theories/activitytheory/> (Accessed: 4th July 2017).

Wass, V., Van der Vleuten, C., Shatzer, J. & Jones, R. (2001) 'Assessment of clinical competence'. *The Lancet*, 357 (9260), pp. 945-949.

Watling, C., Driessen, E., Vleuten, C. P. M., Vanstone, M. & Lingard, L. (2013) 'Beyond individualism: professional culture and its influence on feedback'. *Medical Education*, 47 (6), pp. 585-594.

Watt, D. (2007) 'On Becoming a Qualitative Researcher: The Value of Reflexivity'. *Qualitative Report*, 12 (1), pp. 82-101.

West, M., Armit, K., Loewenthal, L., Eckert, R., West, T. & Lee, A. (2015) 'Leadership and Leadership Development in Healthcare: The Evidence Base.' *London: Faculty of Medical Leadership and Management*. Available at: <https://www.fmlm.ac.uk/resources/leadership-and-leadership-development-in-health-care-the-evidence-base> (Accessed: 26/06/2015).

West, M., Eckert, R., Steward, K. & Pasmore, B. (2014) 'Developing Collective Leadership for health care'. *The King's Fund and Center for Creative Leadership*. Available at: <https://www.kingsfund.org.uk/publications/developing-collective-leadership-health-care>. (Accessed: 26/06/2015).

West, M., Eckert, R., Collins, B. & Chowla, R. (2017) 'Caring to change. How compassionate leadership can stimulate innovation in health care.' *The King's Fund*. Available at: <https://www.kingsfund.org.uk/publications/caring-change> (Accessed: 26/06/2015).

Bibliography

Wheelahan, L. (2007) 'What kind of curriculum, pedagogy & qualifications do we need for an uncertain future? ', in Osborne, M., Houston, M. and Toman, N. (eds.) *The pedagogy of lifelong learning : understanding effective teaching and learning in diverse contexts*. London: London : Routledge, pp. 143-153.

White, C. (2010) 'A socio-cultural approach to learning in the practice setting'. *Nurse Education Today*, 30 (8), pp. 794.

Whittemore, R., Chase, S. K. & Mandle, C. L. (2001) 'Validity in qualitative research'. *Qualitative health research*, 11 (4), pp. 522.

Wiggins, M. S. & Hyrkäs, K. (2011) 'Achieving excellence in nursing management'. *Journal of nursing management*, 19 (1), pp. 1-4.

Willcocks, S. G., Milne, P. & Milne, H. (2013). 'Implementing the MLFC in general practice: implications for development?' *British Journal of Healthcare Management*, 19 (4), pp. 178-185.

Williams, D. (2010) 'Theory of own mind in autism: Evidence of a specific deficit in self-awareness?'. *Autism : the international journal of research and practice*, 14 (5), pp. 474-494.

Wiser, F., Durst, C. & Wickramasinghe, N. (2019) 'Using Activity Theory Successfully in Healthcare: A Systematic Review of the Theory's Key Challenges to Date'. *Hawaii International Conference on System Sciences 2019 (HICSS)*. Hawaii.

Wong, C. A., Cummings, G. G. & Ducharme, L. (2013) 'The relationship between nursing leadership and patient outcomes: A systematic review update'. *Journal of Nursing Management*, 21 (5), pp. 709-724.

Yardley, S., Teunissen, P. W. & Dornan, T. (2012) 'Experiential learning: AMEE Guide No. 63'. *Medical Teacher*, 34 (2), pp. e102-e115

Yorke, M. (2003) 'Formative Assessment in Higher Education: Moves towards Theory and the Enhancement of Pedagogic Practice'. *Higher Education*, 45 (4), pp. 477-501.

Bibliography

Yuen, J. H. P., Victor Chen, D.-T. & Ng, D. (2016) 'Distributed Leadership through the Lens of Activity Theory'. *Educational Management Administration & Leadership*, 44 (5), pp. 814.

Yukl, G. (1989) 'Managerial Leadership: A review of Theory and Research'. *Journal of Management*, 15 (2), pp. 251-289.

Yukl, G. (2012) 'Effective Leadership Behavior: What We Know and What Questions Need More Attention'. *Academy of Management Perspectives*, 26 (4), pp. 66-85.

Yukl, G. A. (2013) 'Leadership in organizations'. 8th, Global edn. Boston, [Mass.] London: Pearson.

Yukl, G., Gordon, A. & Taber, T. (2002) 'A hierarchical taxonomy of leadership behavior: integrating a half century of behavior research'. *Journal of Leadership & Organizational Studies*, 9 (1), pp. 15.

Yukl, G. & Mahsud, R. (2010) 'Why flexible and adaptive leadership is essential'. *Consulting Psychology Journal: Practice and Research*, 62 (2), pp. 81-93.

Yun, S., Faraj, S. & Sims, J. H. P. (2005) 'Contingent Leadership and Effectiveness of Trauma Resuscitation Teams'. *Journal of Applied Psychology*, 90 (6), pp. 1288-1296.