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Leadership in Dental Practice: a Three Stage Systematic Review and Narrative Synthesis

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1 **Title: Leadership in Dental Practice: a Three Stage Systematic Review and Narrative**
2 **Synthesis.**

3 **Abstract**

4 **Objectives**

5 To review leadership for dentists in patient facing, primary care dental practice.

6 **Methods**

7 A three stage systematic review with narrative synthesis:

8   1. A scoping overview - management and leadership policy context.
9   2. A systematic review of reviews of leadership in healthcare.
10   3. A systematic focused review of leadership in patient-facing dental practice.

11 **Results**

12 The healthcare literature mirrors the generic literature in relation to the temporal evolution of
13 leadership theories. Policy papers influence healthcare literature, though these are generally
14 written by independent bodies, link solely to medical publications, and are often
15 commissioned from the grand strategic level thereby grounding them in a politicised system.
16 The healthcare leadership literature offers few studies at the operational (patient care) level of
17 leadership, with none of these focused explicitly on dentistry and dental practice.

18 Numerous aims, definitions, models, conceptualisations, and links to theories of leadership
19 are reported. The stage 1 literature demonstrates more contemporaneous ideas of leadership,
20 while the dental practice literature is too often grounded in outdated concepts and theories.

21 **Conclusions**

22 The overarching trend is from leaders to leadership; with no unified definition, model, theory,
23 concept nor aim recognised. The fundamental importance of specific context and the reaction

24   of others to leadership is reinforced. Leadership theories aligned to healthcare include

25   Engaging, Authentic, Collective and the Transformational-Transactional continuum.

26   Leadership is a dynamic, socially constructed process, only occurring in a group setting.

27   Consisting of multiple moderating variables that demonstrate reciprocal influence on one

28   another, these influences are neither equal nor stable. (246 words)

29

30   **Clinical significance**.

31   Leadership is embedded in regulatory guidance and standards relating to general dental

32   practice. It is therefore crucial to have an evidenced based understanding of what leadership

33   means in this context, and what further work is necessary to support clinicians in the

34   leadership domain. (43 words)

JofD SR and narrative synthesis - leadership. Main manuscript

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35 **Title: Leadership in Dental Practice: a Three Stage Systematic Review and Narrative**

36 **Synthesis.**

37 **Introduction**

38 Leadership has received an increased profile of importance in healthcare in recent years;

39 espoused as one of the major influences on patient safety, quality of clinical care and the

40 shaping of healthcare culture in our society. [1-4] Reports into a number of high profile cases

41 of inadequate patient care in the UK identified failings in leaders and leadership that may

42 have been responsible for these negative outcomes. [5,6] An upsurge in focus on leadership

43 in healthcare policy and guidance followed [7-9]; the NHS developed its own leadership

44 academy; and regulators mandated leadership in their training, education and inspection

45 protocols. [3, 10-13] During events such as the recent covid-19 pandemic, effective

46 leadership is reported to be needed more than ever, as we face new and difficult challenges,

47 across healthcare professions and across the globe.

48 Over the last decade, leadership has become an important domain of learning in dentistry.

49 The General Dental Council (GDC) registers and regulates all dental professionals in the UK

50 and sets out legally binding standards of practice. They include the requirement that

51 "*management and leadership should be embedded in training from the outset of their [dental*

52 *registrants'] career*". [12 p12] The Association of Dental Education in Europe (ADEE)

53 developed outcomes expected of a pan-European graduating clinician that include

54 management and leadership. [14] Likewise, the Australian Dental Association published

55 'Professional competencies of the newly qualified dentist' [15] that embed leadership, linking

56 to the Australian Health LEADS framework; [16] and the American Dental Association

57 collaborated with dental leadership organisations to create a leadership education framework

58 and toolkit. [17] However, despite widespread enthusiasm, there remains a paucity of

59 information relating to a clear definition, theoretical model, aim or concept of leadership;

60   making operationalisation in educational, development or training contexts highly

61   problematic.

62   **Theoretical underpinnings**

63   Leadership is reported to be a *"fluid, dynamic, socially constructed and mediated concept….*

64   *[whose] meaning changes over time and between cultures*". [18 p896] Literature includes a

65   myriad of definitions, based on almost as wide a variety of underpinning foundations, and has

66   been defined *"in terms of traits, behaviors, influence, interaction patterns, role relationships,*

67   *and occupation of an administrative position*". 19 [p24] Multiple models and theories exist

68   which have evolved over time. They are often related to the most popular theory of leadership

69   at the time of development; the political and social situation; or the researchers' own prior

70   work. [19-22] This trend is depicted in figure 1.

71   [Figure 1 near here]

72   This temporal transition has not been a smooth or linear process, nor has the development of

73   one theory necessarily negated the previous ones. The general trend is from leaders being

74   'born not made' via inherited traits of greatness [23,24] to the current prevailing view that

75   everyone in an organisation shares the duties of leadership, subscribes to the vision and takes

76   a fair share of responsibility, that is, leaders are 'made not born'. [4, 25-28] In short, the trend

77   is from leaders to leadership.

78   **Aims and Objectives**

79   The aim of this review was to inform a PhD exploring leadership at the patient care and

80   primary care dental practice level, in order to support authentic dental education. The

81   narrative methodology, combining robust approaches from the social, natural and biomedical

82   sciences, provides the scaffold that draws together disparate literature in a meaningful way.

83   [29, 30] This review focused on UK governance frameworks and policy because the

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84 subsequent work was being completed within the UK, but the outcomes may be transferable

85 to clinicians in various contexts. The search methodology can be developed easily to refine

86 the inclusion and exclusion criteria relevant to the context of work being undertaken.

87 Through this it will be possible to recognise if, how, or where, political, governance or

88 profession level literature influences leadership at the patient-facing level. The results

89 demonstrate relevance to clinicians in all areas of practice, clinical educators, trainers and

90 researchers across the spectrum of specialties and crossing geo-political boundaries.

91   The questions the review addresses are:

92 • What is already known about and understood by the terms 'management and

93   leadership' in healthcare?

94 • Are the terms 'management and leadership' conceptualised in a relevant way for the

95   dental setting?

96 • Are any accepted leadership styles, theories, skills, traits or behaviours deemed

97   necessary to enable dentists to provide effective clinical care for their patients in

98   primary care practice?

99 Narrative synthesis as a form of storytelling is a highly appropriate method to collate

100 disparate and large volumes of information from across a wide range of sources and types of

101 literature. [29,30] Systematic searching and analysis of this heterogeneous literature, permits

102 conclusions to be drawn from across dissimilar study types, research methods, outcome

103 measures, modes of analysis and types of data. The results of the combined synthesis across

104 all stages thus define the current understanding of leadership and its relevance to the primary

105 care dental practice setting.

106 The aim of this paper is to describe an effective and reproducible method of exploring the

107 leadership literature, and to clarify the current understanding of leadership in dental practice.

108   **Methods**

109   Owing to the quantity, diversity and breadth of the literature on leadership, the review

110   comprised three stages.

111   1.   A scoping overview of management and leadership policy context.

112   2.   A systematic search for a review of reviews of leadership in healthcare.

113   3.   A systematic search for a focused review of leadership in dental or relevant primary

114   care, patient-facing practice.

115   A systematic search methodology ensured appropriate sensitivity and specificity when

116   capturing the available literature, and papers from all three stages were reviewed as a single

117   body of literature. Searches were completed on 22nd January 2019.

118   **Stage 1** was a scoping exercise incorporating overarching, commonly cited literature

119   on management and leadership in organisations that influence the UK sector, as well as

120   aspects of the more policy driven grey literature in healthcare. Some of this relates to NHS

121   and organisational governance in general, rather than clinical practice in particular. The NHS

122   has been the major influence for healthcare development including dentistry, and continues to

123   have a profound impact on the entire healthcare environment. It is a unique UK institution

124   and distinctive from governance processes in other countries. It was therefore important to

125   include this literature as it may influence the operationalisation of leadership in this context.

126   Table 1 details the 22 documents retrieved though this initial scoping website search.

127   [Table 1 near here]

128   **Stage 2** was a review of reviews of leadership in healthcare; more specifically describing

129   the current academic ideas of leadership in clinical healthcare settings. The inclusion of this

6

130   field gives context to the healthcare setting where patient-oriented outcome measures are

131   often influential in addition to consumer, organisation or employee outcomes.

132   **Stage 3** related specifically to leadership in primary care clinical practice centring on

133   dental practice. The healthcare setting and the clinician emphasis enhances the relevance of

134   the search findings to dental practice. Studies that related to leadership qualities in clinical

135   care practices of other front line clinical staff were included where they utilised a conceptual

136   rather than governance angle, to enhance the relevance of the review findings.

137   For stages 2 and 3, nine databases were searched: Medline (EBSCO), British Education Index

138   (EBSCO), Dentistry and Oral Sciences Source (EBSCO), PsychInfo (ProQuest), Excerpta

139   Medica Database (Embase), Jstor, Business Source Complete (EBSCO), Health Management

140   Information Consortium (HMIC), Cumulative Index of Nursing and Allied Health Literature

141   (CINAHL) (EBSCO). They were identified to provide wide coverage across the fields of

142   leadership in business, healthcare and medical education. [31,32] Searches were conducted

143   using Boolean operators and notations appropriate for the specific database as described

144   below in table 2, and using the SPICE framework eligibility criteria in table 3.

145   [Table 2 & 3 near here]

146   Search strategies were conducted in line with guidelines and best practice [31,32] and studies

147   were assessed for eligibility for inclusion through the lead researcher in liaison with members

148   of the research team. This was continued throughout the process to minimise the possibility

149   of single researcher influence over the review, and to enhance transparency. Table 4 depicts

150   the inclusion and exclusion criteria.

151   [Table 4 near here]

152   The PRISMA diagram details the search strategies of stages 2 and 3 and is depicted in

153   figure 2.

154   [Figure 2 near here]

155   630 records were retrieved across the two searches and 151 articles remained after duplicates

156   and SPICE frameworks were applied to the abstract and titles. These full texts were studied

157   against the specific inclusion and exclusion eligibility criteria in table 4. 53 studies were then

158   included across these two stages.

159   The literature on leadership in healthcare has developed greatly within the last 15 years with

160   multiple organisations seeking to enhance the profile of leadership since 2010. Stage 2 and 3

161   searches were therefore limited to the last 12 years. Ancestry searching of the included

162   studies was undertaken to identify any additional potentially relevant publications. [32]

163   Duplicates from this process were not included for a second time. Only two papers appeared

164   in more than one stage of the review and each of these was considered once only. 73 works

165   were therefore included in the final complete review.

166   22 from stage 1 – the policy review context

167   33 from stage 2 – the review of reviews in healthcare

168   18 from stage 3 – the focused review in dental practice.

169   **Quality Assessment Rating (QAR) and Post Sensitivity Analysis.**

170   All studies underwent a QAR to inform a post sensitivity analysis where the impact of

171   removing the lower quality studies from the analysis was explored. [34] There is currently no

172   single accepted method for quality assuring such a wide range of publications and web

173   resources. CASP tools (http://www.casp-uk.net/casp-tools-checklists) were used for quality

174   assurance of systematic reviews and studies employing qualitative methods while the

175   Cochrane risk of bias tool (http://methods.cochrane.org/bias/assessing-risk-bias-included-studies)

176   (covering bias in the areas of selection; performance; detection; attrition; reporting; other)

177   was utilised for other types of study.

178   All studies from stages 2 and 3 of the review were given a final quality rating of low, medium

179   or high. For the CASP literature review, question 6 was not included as this is a description

180   of the results and forms part of the overall synthesis. Therefore the CASP rating for

181   systematic reviews was out of 9, the rating for qualitative studies was out of 10. CASP ratings

182   of 0-3 resulted in a low quality rating; 4-6 medium; 7-10 high.

183   The Cochrane Risk of Bias (RoB) gave results of Yes (Y), No (N) or can't tell (CT) across 5

184   areas. A low rating was awarded for 0-2 N & 3-5 Y; medium for 0-2 N & 2 or fewer Y; high

185   for a minimum of 3 N and 0 Y.

186   Due to the nature of the policy review documents in stage 1 of the literature it was not

187   possible to rate them all and so the impact of removing all the works reviewed within stage 1,

188   the overview of policy context, was also considered.

189   There were ultimately 15 low quality studies identified, equivalent to 29% of the second and

190   third stage corpus. By disregarding the entirety of the first stage of the review along with the

191   low quality studies, just 36 papers were considered of the total 73 (49% of the original

192   corpus) in the post review analysis. This had a significant effect on citations by removing

193   some publications entirely; including all but one of the government and policy context

194   reports. There was no significant impact on the spread of citations across the years covered

195   by the review, however, with included papers from 2008 to 2018 inclusive. Links to

196   compassionate, engaging, and trait theories of leadership were removed but links remained to

197   authentic or congruent leadership theory. It is interesting to note that while engaging

198   leadership is the main theory espoused within the overview of policy context literature, it has

199   not yet emerged in the more academic literature in healthcare. It is also interesting to note

200   that policy does not appear to be based on evidence from the peer-reviewed literature, and

201   relies heavily on findings from independently commissioned reports. Post sensitivity analysis

202   reinforced the outcome that there is a dearth of evidence at most levels of leadership, and that

203   the majority of evidence comes from the organisational or strategic level – that is, it is

204   considered at the management level of a hospital, and not at the clinical or operational

205   (patient facing) level. The only significant impact of the post synthesis analysis related to the

206   aim of leadership by removing the paper that stated explicitly that leadership is needed at and

207   across all levels of an organisation whether the aims are shared or different. [35]

208   Overall the post sensitivity analysis had little impact on the results of this full review and will

209   not be considered further. Results below are from the review of the full dataset.

210   **Results**

211   Data were extracted and analysed with respect to citation; document or study type; leadership

212   level, aim, concept and explicit link to recognised theories or models (detailed in Appendix

213   1).

214   **Policy context of leadership.**

215   A number of bodies that are influential in terms of setting the context for leadership in

216   dentistry have publications included in stage one of this review. These organisations have

217   published multiple documents over the last 15 years in the pursuit of 'professionalising'

218   leadership within healthcare. Many of their publications have been commissioned or written

219   by other independent bodies, who have their own agendas and consider leadership within the

220   NHS only. They are rarely independent pieces of academic research and a 2015 FMLM

221   literature review found "*relatively little research conducted to a high academic standard*". [2

222   p10] Nonetheless, this work is influential in healthcare and training even if it demonstrates

223   variable academic quality.

224 Although purporting to relate to dentists as well as doctors, all of the documents in stage 1

225 were mapped solely to General Medical Council (GMC) publications and used competencies,

226 situations, case studies and criteria specifically related to medical practice. There was no

227 mention of 'dental' or 'dentist' in any of the publications. Assessment methods and

228 techniques had been informed by reviews of medical literature, attitudinal studies and critical

229 analysis of medical curricula; there was no direct observation or ethnography to confirm,

230 clarify or operationalise them and there was no evidence that they have any direct link to

231 dentistry either within or outside the NHS setting. The majority of these publications

232 concentrated on leadership within the NHS framework in a secondary care hospital setting at

233 an organisational (strategic) level.

234 The underpinning leadership models or theories they linked to, come from a wide range of

235 sources themselves, many of which are not from the peer reviewed literature, nor do they

236 have published peer-reviewed evidence bases on which they have been developed. The policy

237 context derived from stage 1 has infiltrated into healthcare more generically and informed

238 some of the more specific literature included in stages 2 and 3, both implicitly and explicitly.

239 [35-42] This promulgates policy context based ideas, with their grounding in a politicised

240 system, into the healthcare specific literature.

241 **Defining leadership.**

242 There are multiple and varied definitions of leadership – in fact at least 350,000 within the

243 academic literature. [43] The 'Leadership and Better Patient Management in the NHS'

244 document states that: "*leadership is better explained as a process or series of processes of*

245 *interaction rather than the presumption that it consists of observable and measurable*

246 *characteristics*". [43 p24] Within this review a definition of leadership was provided in only

247 12 of the 73 papers.

248 Leadership was defined as:

249 • A social or influence process occurring in a group [2,37,44-48]

250 • An ability, art or skill that leads to goal attainment [49-52]

251 • A regulatory, problem solving process that infers sustainability (dependability and

252 predictability) [53]

253 Only one paper provided a specific definition of **clinical** leadership in general dental practice

254 where it was defined as, "*the skills required to provide effective patient care within a*

255 *successful business*". [42 p255] A literature review specifically about clinical leadership in

256 healthcare reported that there is no standard definition of clinical leadership, but that the

257 clinical component relates to "*anyone with a clinical patient role"*. [35 p4] They defined

258 clinical leadership as a social process for goal attainment or an influence process with or

259 without an end-point or aim. Clinical leadership in other studies tended to allude mainly to

260 those in management roles who were trained clinicians, whether or not they continued to

261 perform clinical duties.

262 In line with the generic literature, these 12 studies found no common ground where a

263 definition was concerned. Nor did any of the studies attempt to operationalise leadership. The

264 FMLM confirm "*there is no best way to develop leaders; good leader development is context*

265 *sensitive"* [2, p18] and that there is no single best method of leadership. Contextual factors

266 that support a successful strategy in one situation may render them totally ineffective in

267 another. [37]

268 The contemporaneous definition of leadership is therefore reinforced as a context dependent,

269 multifaceted process containing several interacting areas that influence one another in a

270 variety of ways. Interactions and influences are reciprocal but not necessarily equal or stable.

271

272   **Considering leadership levels.**

273   Organisational and leadership levels are a method of classifying a strategic hierarchy that

274   leadership may be related to, investigated at, or conceptualised by, within an organisation or

275   business. Such classification identifies this specific contextual element to leadership, and is

276   defined at five levels: individual, dyadic (tactical/relational), team (unit/operational),

277   organisation (strategic), systems (grand strategic/political). [2,40,42,54-56] Across the papers

278   in this review leadership levels were used to define job roles and hierarchical structures; and

279   demonstrate the level at which individuals are making decisions and plans, and thus the

280   impact of those decisions. Figure 3 depicts how the organisational and leadership levels relate

281   to one another, to the secondary care, hospital setting and to primary care dental practice

282   environments.

283   [Figure 3 near here]

284   Table 5 depicts the spread of these levels within the included papers of this review.

285   Numbers in this and the following tables refer to the paper's position in the systematic

286   process (Appendix 1): 1-22 are stage 1 (the scoping policy review), 23-55 stage 2 (review of

287   reviews in healthcare), and 56-73 stage 3 (the focused clinical patient facing review). Of the

288   reviewed papers, 26 neither stated nor implied which organisational or leadership level they

289   were situated in or referring to.

290   [Table 5 near here]

291   20 of the reviewed works make explicit links to leadership at the organisational level; that is

292   the leadership level for an entire hospital or dental practice (see figure 3). 15 related

293   leadership to the individual qualities of the clinician, independent of role, function or context

294   and 11 explicitly stated that they were relating their findings to all levels. There were only

295   three that claimed to investigate leadership at the clinical practice, patient facing operational

296   level, and none of these were found in part 3 of the review with the direct link to dental

297   practice. Therefore, none of the reviewed literature is related directly to leadership in dentists

298   in their clinical role in a patient care, practice setting. This is a clear gap in the literature at

299   present.

300   There were also no studies at the tactical level concerning relationships, and yet relationships

301   are likely to play a significant role in any patient-facing situation. It is interesting to note that

302   there were only two studies at the grand strategic political systems level where policy is

303   created (national or local government roles) and many more at organisational level where the

304   policies are put into practice. Many of the reports aimed at organisational level leadership,

305   however, were commissioned at grand strategic level. This may influence the reporting or

306   operationalising of outcomes in some way as there may be a pre-determined political agenda

307   in what is commissioned and how. This section highlights the relevance of including the UK

308   based policy and grey literature to this review; and that widening or changing the geo-

309   political slant of the inclusion criteria may be useful in other contexts when studying these

310   phenomena.

311   **Reviewing competency frameworks.**

312   While competency frameworks remain popular, it has been recognised that the "*competency*

313   *approach…..only reflects a fragment of the complexity that is leadership*" [91 p147] and

314   ticking the competency box is insufficient to support effective leadership. [21,25,37]

315   Although deemed insufficient in current leadership literature, competency frameworks for

316   leadership remain popular within the NHS, with new iterations being compiled on a regular

317   basis, from the original Medical Competency Leadership Framework (MCLF) [74] to the

318   more recent, "Developing People – Improving Care. A national framework for action on

319   improvement and leadership development in NHS-funded services". [4] Throughout the

320 documents in this review there are a number of competency-based models of leadership.

321 [4,54,72-75,92] Many others also suggest that leadership requires merely a specific set of

322 skills or abilities. [37,41,42,49,56,59,60,68,82,86,93] The competencies reported to be

323 required are many and varied and include: problem solving and decision making, creating and

324 communicating a vision, remaining calm under pressure, being creative, being experienced

325 and competent, and being supportive and empathetic. Thus, while multiple diverse

326 competencies are related to leadership, there remains no clear consensus across authors or

327 contexts. Neither is there evidence to show that demonstration of such competencies alone is

328 sufficient to be successful at leadership.

329 **Models and theories of leadership.**

330 Out of the 73 papers in this review, 23 made no explicit links to an existing theory or model

331 of leadership. Of the remaining 50, no one single theory or model was used consistently, and

332 some papers continue to refer to leaders rather than leadership, and to rely on or use outdated

333 trait and/or competency based models.

334 Table 6 summarises the range of theories linked across the three stages of this review.

335   [Table 6 near here]

336 The medical literature mirrors the generic literature regarding the generally accepted

337 temporal course of ideas on leadership models and theories depicted in figure 1. [2,40,43,57]

338 Gender issues remain prevalent in healthcare leadership conversations and trait theories are

339 still referred to in studies from stage 3 of this review. [37,52,68] This 'old-fashioned' way of

340 thinking about leadership, and the concern that it is still being used within the time-frame of

341 this review, may exert a negative influence on the behaviour of individuals within such

342 professions.

343   Despite being outdated, there are still many models and theories described throughout the

344   papers in this review that are based on behavioural concepts. The 2010 Health Foundation

345   report for example utilises the Indicators of Quality Leadership$^{©}$ framework (IQL$^{©}$) to

346   identify and rank 120 leadership behaviours; [57] and in 2016 the FMLM published their

347   latest 'Leadership and management standards for medical professionals (2nd edition)'

348   detailing 48 effective leadership behaviours under seven sub headings allegedly suitable

349   "*across all career levels*". [3 p1]

350   The most frequently cited behavioural model across this literature is transactional leadership.

351   This may be because it is a relatively simple concept to align with policy, and use for

352   training. The more recent literature in this review departs from behavioural, transactional

353   theories towards transformational leadership or a combination of the two differing

354   approaches. [36,43,47,72,79,85,87] Transformational theory is popular within healthcare in

355   this review and considered the most influential theory guiding healthcare leadership in recent

356   times. [2] Within the NHS, this may be linked to the need to keep staff engaged and aligned

357   despite funding shortfalls. [94, 95]

358   A newer relational theory, shared or collective leadership, is also recognised across papers in

359   this review. To engage people throughout an organisation in decision-making processes and

360   link their individual objectives to organisational goals, collective or shared leadership spreads

361   the leadership positions throughout and across an organisation. [65, 80] This ensures

362   everyone takes responsibility for the success of the whole organisation, not just of their own

363   role. Such leadership retains a formal hierarchy, but the leadership at any moment is

364   dependent on the situation, with power being situationally dependent on who has the

365   expertise at each moment, for each task. [9] These relational theories start to take into

366   account followership [90, 96, 97] where the perspective of both leader and follower, as well

367   as their relationship, will potentially influence the success or otherwise of a shared leadership

368   system. [7, 9, 26, 50, 60, 61, 92, 97, 98] Collective and transformational leadership theories

369   have been reported as the keys to unlock and generate cultural change in the NHS. [9, 43]

370   Engaging leadership is a popular theory within stage one publications [4, 7, 36, 57, 65] where

371   it is promoted as the answer to running a successful organisation and demonstrating effective

372   leadership in today's diverse, inclusive, competitive and ever-changing society. However, as

373   with the critique of relational theories in general, 'followers' need to be engaged for success

374   to be achieved. In addition to engaging leadership, compassionate leadership is being

375   recognised increasingly as vital in today's NHS. Defined by the King's Fund on their

376   website: "*compassionate leadership means paying close attention to all staff and really*

377   *understanding the situations they face. Then responding empathetically and taking thoughtful*

378   *and appropriate action to help*". Compassionate leadership is said to underpin an inclusive

379   culture that delivers quality and efficiency improvements quickly, while taking care of staff

380   and the organisation itself. This is in addition to being akin to compassionate patient care.

381   [41] The King's Fund report 'Caring to change' [55] makes great claims about how this

382   theory of leadership is fundamental to the NHS. It incorporates elements of relational theories

383   and reinforces the importance of 'crossing boundaries'. Although the 2016 NHS

384   Improvement policy report is based on this theory, it is not widely found in the literature

385   outside of the King's Fund publication, and is only mentioned in one further paper found in

386   this review [41] whose author also reviewed the King's Fund paper.

387   Like compassionate leadership, engaging leadership is linked less explicitly with the more

388   academic and operational health care literature. [86] This may be in part attributed to the

389   time-lag inherent in operationalising academic research. A different view might be that there

390   was need for a 'quick fix' in the NHS, so that ideas and policies were developed within very

391   short time spans to suit the pressing social and political agendas of the time, rather than

392   waiting for the outcomes and publications of peer reviewed academic work.

393 Emotional Intelligence (EI) has been linked to relational theories of leadership and as an

394 underlying component of transformational leadership in particular. [44, 45, 88] In healthcare

395 a patient is rarely predictable, often highly animated, and adds an additional level of

396 complexity into the picture –meaning the clinician has to manage their own emotions while

397 responding to the emotions of others. The 2011 NIHR publication 'Leadership and Better

398 Patient Care: Managing in the NHS' devotes an entire section to emotion and the need for

399 emotional intelligence in healthcare work. [43 p27-33] These and other authors describe the

400 issue of 'emotional labour' where individuals are required to manage their own emotions

401 (emotional regulation) while concurrently portraying a specific, non-emotional reaction to

402 their clients or patients as 'part of their job'. [43, 84]

403 Emotional intelligence, emotional regulation and emotional labour are complex areas of

404 theory, but in today's ever changing, competitive and unpredictable society, "*emotional*

405 *regulation is …. associated with effective and good leadership and is essential in relation to*

406 *how people deal with negative emotions in order to reduce potentially adverse outcomes*".

407 [84 p287] Individuals cannot perform emotional regulation efficiently if they do not possess

408 EI, although it is a complex area to study and is not an explicit inclusion in much of the

409 academic healthcare literature. [45, 88]

410 Authentic leadership combines the relational theories with EI to re-consider the importance of

411 the individual inhabiting the leadership role. Authentic leadership is not always about

412 managing change or working to a goal, but "*it is about where the leader stands, not where*

413 *they are going*". [99 p522] Authentic leadership purports that those in leadership roles need

414 to embed a positive moral perspective and develop psychological capital to enhance their

415 self-awareness and self-regulation, enable relational authenticity and their ongoing adaptation

416 for positive self-development of themselves and others. [48, 100-106] Authentic leadership

417 theory supports a shared leadership system and not only integrates ideas from the relational

418   theories with EI, but embeds the more recent idea of the need for crossing boundaries. [55,

419   107] This supports development of a positive organisational culture where all are working

420   together, regardless of role, level or perceived hierarchy, creating an environment where all

421   feel empowered and valued to optimise performance. Authentic leadership is critiqued as

422   being subject to all the risks of the dark side of trait theories, [26, 108] of not being gender

423   neutral due to the deeply embedded traditional historical and cultural male dominance of

424   leadership [101, 104] and of the need to be more conscious of the importance of followership

425   and response to leadership. [96, 97] Authentic leadership is reported as one of the most useful

426   of all theories to relate to healthcare leadership [48] where leadership and clinical care values

427   and beliefs are seen to be reflected in one another and shared as authentic values of the

428   individual. [101, 109] Individuals demonstrating authentic leadership communicate honestly

429   and openly to achieve positive outcomes for staff, patients and the organisation [48] through

430   their consideration for and of the individual 'follower' enabling them to "*assess their moves*

431   *and satisfy their needs*". [43 p24] Authentic leadership supports the development of

432   leadership being the focus over the individual leader, and where leadership is about

433   performing activities while also being effective and inhabiting the role of leader in an

434   authentic manner. It is the most up to date theory connected explicitly to today's healthcare

435   environment in this review and also linked to both emotional intelligence and

436   transformational leadership theories. [2, 48, 50, 60, 73, 108, 111]

437   Across the three stages of the review, transformational and shared or collective theories were

438   the most commonly linked. As can be seen, however, some of the more contemporary

439   theories (including shared, engaging, and compassionate) still link mainly to stage 1 of the

440   review: the overview of policy context, containing independently commissioned reports.

441   Authentic leadership, the theory that aligns most closely with these, is mainly found in the

442   academic healthcare literature of stage 2. The focused review of the primary care patient

443   facing setting retains its reliance on outdated ideas of leadership as well as the use of

444   simplified competency frameworks.

445   **Conceptualising leadership.**

446   Beyond the theories used in different papers, concepts of leadership were expressed in varied

447   ways. While much of the literature conceptualises leadership appropriately as a complex

448   process, 43 of the 73 papers still used a simple binary dichotomy such as 'management versus

449   leadership' and 'individual versus relational' context. In addition, many papers include

450   behavioural, trait, skill or contextual/situational frameworks as their conceptual basis for

451   discussing or investigating leadership, which oversimplifies its complex nature. As with the

452   links to theory and models, there is no one single concept of leadership that underpins or

453   aligns with the majority of the reviewed work.

454   The conceptualisation of 'management' and 'leadership', separately or conjoined, is itself

455   challenging. Much literature suggests there is a distinct division between the two concepts:

456   "*management is doing things right, leadership is doing the right thing*"; [103 p9]

457   "*management is transactional, leadership is transformational*". [63 p5] In contrast, however,

458   the two concepts are also often seen as inextricably interwoven and with various activities

459   linked equally to both and all required. [61, 65, 78, 104]

460   Regardless of specific definition, concept, or alignment or otherwise with management, the

461   agreed overarching understanding of leadership is as an abstract construct that is not

462   observable directly; as a socially constructed process that needs other people ('followers');

463   and as a complex and dynamic activity that contains multiple interacting variables. It is

464   dependent or 'contingent' on who an individual is, how they behave, and the context in which

465   they work.

466

467   **Aims of leadership.**

468   Throughout the reviewed works there were multiple purported aims of leadership and 22 of

469   the 73 papers reported no aim at all. Across the remaining 51 papers, aims of leadership

470   included: to act as a change agent, to manage and deliver services, to create culture and

471   articulate vision, and to maintain or improve the work place and team dynamic as well as

472   enhance the quality of services for the benefit of patients. There is no single aim of leadership

473   shared across the reviewed works, and many (33) of the papers documented multiple co-

474   existing aims, all worthy goals, but with wide ranging and ambitious responsbilities for

475   leadership to achieve. Many of the papers with multiple aims include development and

476   support for the clinical environment and individuals, in addition to driving organisational

477   change. [35, 69] Setting the tone and culture of an organisation is intertwined with resolving

478   conflict, giving feedback and creating a non-judgemental learning environment for all. [39,

479   56, 79] Only one study [58] defined which levels of leadership were aligned with which aims.

480   Where works did not differentiate the aim of leadership between or across specific

481   organisational and/or leadership levels, it was described according to a variety of areas as

482   relating to:

483   • People and managing talent [62, 66]

484   • The organisation as an entity to build a legacy of success in the system [53]

485   • Creating culture [67]

486   • Processes. To imagine, will and drive change, [43] actively support effective

487   teamwork, [73] make a difference to the care delivery process [64, 81]

488   • Outcomes. To ensure quality care and healthy workplaces, [83] foster a healthy

489   work environment & create inspiring relationships based on mutual trust, [45]

490   influence well-being at work, [89] improve the quality of patient care, [57, 72]

491   drive service improvement and provide effective management of teams to deliver

492   excellence in patient care. [58,70]

493   The review demonstrates that there is no shared agreement of the aim of leadership either

494   within or across the three stages of literature reviewed.

495   **Conclusions**

496   This narrative review of the literature incorporating a three-stage search strategy has shown

497   that there is no clear, single or agreed definition, aim or concept of leadership; nor one theory

498   or model that is useful in every healthcare situation or eventuality. Leadership is espoused,

499   however, as being the solution to a multitude of issues across healthcare systems, to have

500   numerous and varied aims and to be needed at all levels. This is not mirrored in the more

501   academic literature, neither is there evidence to operationalise leadership at each level. The

502   shift from the importance of individual leaders to leadership processes does appear to be

503   consistent but there are still many writers relying on outdated ideas and talking about

504   'leaders' within these reviews. [4, 35, 61, 63, 70, 71, 73]

505   While the policy context and system level standards and reports are laudable and welcomed,

506   in-depth high quality studies are needed to substantiate their multitude of claims at the

507   operational (team) and dyadic (tactical) levels. Empirical evidence is required to ensure that

508   the quality of patient care, staff performance, organisational maintenance and improvement

509   of healthcare overall can indeed be enhanced through such leadership practices.

510   Leadership is seen as a process that can be conceptualised in numerous ways, and consisting

511   of multiple moderating variables and elements, all of which demonstrate reciprocal influence

512   on one another to impact its effectiveness. It is a dynamic socially constructed process,

513   which is only apparent in a group setting. The outcomes of this review reinforce the context

514   dependence of leadership as part of a highly complex interactive social activity; but there is a

515   dearth of evidence available relating to specific contexts, or including complex analytical

516   frameworks for such activity. There is a need to identify the overall aim(s) of leadership

517   within the specific context in which it is being performed or studied. Many of the models and

518   existing theories of leadership may well end up being useful in specific situations, however at

519   this stage the evidence base is inconclusive about which might be useful where.

520   This review has highlighted the need to create a more academically rigorous evidence base

521   for leadership for dentists in practice in particular and for clinicians in general. It has

522   demonstrated clearly the geo-political systems level influence on healthcare, and provided a

523   means to identify that influence across or within different contexts and for varying

524   specialities. It has also confirmed the complex reciprocal nature of leadership and its need to

525   consider not just the individual leader, but their relationships with, and the fundamental

526   importance of, the reactions of those being led.

527   These findings can now be embedded into clinical and education practice, while

528   acknowledging the need for additional, operational level empirical studies of leadership. The

529   exploratory study informed by this review of leadership literature in the context of the general

530   dental practitioner has begun to address this. The final results of which may also be

531   generalisable to any clinician in a patient facing situation.

532   Finally, this narrative synthesis has described a review process including systematic and

533   reproducible searching strategies that can be carried out by others to support the ongoing

534   understanding and evidence base of leadership in the clinical context.

535

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Tables

Table 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
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 Center for Creative leadership (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	2015	Faculty of Medical Leadership and	Leadership and Leadership Development in Health Care: The Evidence Base

Eckert West Lee		Management (FMLM)	
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. 2nd 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

Table 2. Search terms, Boolean operators and limiters for stages 2 and 3 searches

Search terms and Boolean operators stage 2	Search terms and Boolean operators stage 3	Limiters
Leader* OR "management and leadership" (Title)	Leader* OR Leading OR "management and leadership" (Title)	2006-January 2019 Written in English Full text available
AND	AND	
review OR "literature review" OR synthesis OR "meta review" OR "meta synthesis" (Title)	Dent* (Abstract)	
AND		
Health* OR medi* OR doctor* OR clinic* OR dentist* OR dental OR nurs* OR patient* (abstract)		

Table 3. SPICE framework for systematic search of stages 2 and 3

	Stage 2	Stage 3
Setting	Healthcare or healthcare organisation	Clinical healthcare patient facing primary care practice.
Perspective	Studies identifying or evaluating or discussing management and/or leadership qualities.	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.	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.	Studies with or without comparators will be included.
Evaluation	Reviews or syntheses of a body of literature.	Studies that 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.

Table 4. Eligibility criteria for stages 2 and 3 of systematic search

Stage 2: review of reviews in healthcare		Stage 3: focused review of patient facing clinical practice	
Inclusion	Exclusion	Inclusion	Exclusion
Last 12 years (2006 – present)	Prior to 2006	Last 12 years (2006 – present)	Prior to 2006
English	Non English	English	Non English
Full text only articles	No full text available	Full text only articles	No full text available
Peer reviewed	Non peer reviewed	Peer reviewed	Non peer reviewed
Review or synthesis of body of literature	Reviewing/synthesis of other than body of literature	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

Table 5. 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

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Table 6. 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

Figure Legends:

Figure 1. Timeline showing progression of leadership theories over time (adapted from

Alban-Metcalfe & Alimo-Metcalfe) [21]

Figure 2. Flow diagram of searches for stages 2 and 3 – based on PRISMA guidelines. [33]

Figure 3. Organisational and leadership levels and how they relate to the healthcare setting.

Declaration of interest: None

Ethical Approval: Not Applicable for literature review

Data availbility statement: the full data extraction set is available in Appendices 1A and 1B

of the full PhD thesis available at: http://hdl.handle.net/10026.1/15776