

REVIEW ARTICLE

Factors Influencing Leadership Behaviour in Dentistry: A Narrative Review.

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Abstract

Objective: This paper aims to have an overview of the factors influencing leadership behaviour in dentistry and other contributing factors to leadership in other healthcare systems that also potentially influence leadership behaviour in dentistry. **Methodology:** Three electronic databases were searched (Web of Science, Scopus and ProQuest). A total of sixteen articles were included in the final review. A combination of the following sets of keywords: 1) leadership AND 2) dentistry OR healthcare AND 3) factor OR influence were searched in the database. **Results:** The literature review explored about educational approach, as well as the leadership opportunities approach as contributing factors in the development of leadership behaviour in dental society. Other factors that are potentially contribute to leadership behaviour in dentistry also explored by looking at factors that influence leadership in other healthcare systems. Effective education and leadership experience are crucial to exhibiting leadership behaviour in dentistry. Other factors that are proven to have a positive influence on leadership behaviour in other healthcare systems such as self-management skills and communication skills are worth to be further explored in dental society. **Conclusion:** This literature review recommends further research to correlate the factors that potentially affect leadership behaviour with the effectiveness of leadership behaviour in the dental community. This will provide a better understanding of the necessary skills that need to be incorporated into dental education to promote dental practitioners with effective leadership behaviour.

Keywords: *behaviour, dentistry, influence factors, leadership.*

Introduction

Leadership is defined as bringing out the best in others and an organization through a combination of attitude, skills, behavioural approaches, and responsibilities [1]. The consistently changing environment of the world we live in today requires leaders to step up and intervene. Leadership skills are critical for all members of dental practice and only improve as dentistry progresses into a multidisciplinary team model. If dental practitioners wish to see clinician-led decision-making and substantive progress in the health sector in which they serve, they must collaborate with the larger healthcare system and bring themselves forward [2]. Concerning healthcare, increased awareness of the importance of leadership in the healthcare system has led to a few training programmes that have been implemented to prepare employees to take on this role [3]. The skills required to be an effective leader differ between professions; however, the underlying principles remain the same. Leadership can be learned, and the skills strengthened when practised consistently. Practice can be in the form of education, grasping opportunities, or experience in a leadership role itself. What constitutes a successful leader can be described by three key components: quality, innovation, and the business culture, therefore, we can state that leadership requires a combination of management, communication, and entrepreneurship skills [3]. The benefits effective leadership can bring in a clinical setting are infinite: instilling confidence in both employees and patients, supporting colleagues in their job progression, bringing out the best in their team members, and solving problems leading to overall clinical success [4].

As previously stated, leadership skills are applicable across all industries; however, effective leadership in a healthcare setting requires additional skills to ensure success. In healthcare, a leader is not only influencing employees and clients, but they are also influencing the behaviour of individual patients. This can have a detrimental effect on a patient's

life if not conveyed effectively. In addition, healthcare systems often comprise multiple groups, departments, and specialties, and therefore, this industry's complexity requires effective leadership at each stage of the hierarchy. Effective leaders will capitalize on the diversity of the healthcare systems as a whole and efficiently utilize resources when implementing decisions and encouraging employees to work towards a common goal [5].

Leadership training is equally important as obtaining clinical skills in dentistry, and opportunities should be presented to dental students to adapt the appropriate skills. An essential skill involved in leadership, specifically in dentistry, is communicating with both adults and children. Influencing their habits and persuading them to make healthier lifestyle choices that impact their oral hygiene is a vital part of the job [6]. Since dentistry is a crucial pillar in the healthcare system, the importance of leadership in the healthcare industry applies to dentistry, with ineffective leadership impacting not only personnel but also patients. Good leadership in dentistry is beneficial to a dental organization, as leaders can motivate their staff towards common goals. This is important as leaders can organize and execute plans with highly motivated staff to achieve common goals. A leader who can create good teamwork among the staff will be able to provide better patient care [2]. This is because the dental staff understands and respects each other in managing the patients. Clinical management can also be effectively delivered by a leader who inspires and understands their staff. This review aims to provide an understanding of the factors that influence leadership behaviour in dentistry and other contributing factors to leadership in other healthcare systems that also potentially influence leadership behaviour in dentistry. Determining the factors that influence leadership behaviour is paramount since understanding these factors can be useful for manipulating them to increase the

quality of dental care as well as a dental management system.

Methodology

A literature search was performed using several research databases such as Web of Sciences, Scopus and ProQuest database, in February 2021. Research articles within the subject area of dentistry and healthcare services published from 2002 to 2020 were searched using a combination of the following sets of keywords: 1) leadership AND 2) dentistry OR healthcare AND 3) factor OR influence. The selection criteria for research articles are as follows; articles are written in English, investigating factors that influence leadership behaviour among dental students, dentists or other healthcare professions. Articles that were short reports/letters, written in other languages and without abstract or full-text were excluded. After going through the selection process of identification, screening and determining eligibility, literature from sixteen articles in the different healthcare fields have been reviewed including dentistry (dental students and dentists) and other healthcare fields (hospital managers, hospital CEOs, medical students, nursing and midwifery clinical leaders, nursing students, physician leaders and educators) addressing the factors that influence on leadership behaviour. Different types of articles were included such as descriptive studies, quasi-experimental studies, case studies and review papers.

Factors Affecting Leadership Behaviour in Dentistry

Posner and Kouzes in 1996 [7] summarized ten lessons for leaders, stating the desired traits that an effective leader is expected to carry; these include honesty, competency, intelligence, straightforwardness, imagination, and inspiration. These factors that equate to well-rounded leadership behaviour can often not be taught, instead, they lie with the individual's personality type. Nonetheless, efficient leadership is a result

of numerous variables that impact overall success in this role and the factors that influence leadership behaviour in dentistry could stem from a person's attitude towards learning and academia.

Education

One of the most palpable factors influencing a dental student's ability to exhibit leadership behaviour is education. A recent study assessed the effectiveness of a postdoctoral leadership course in dental students. The course itself consisted of a leadership and management three-day training with topics including leadership qualities, emotional intelligence, communication skills, and team motivation, to name a few. A total of twenty-two participants took part in this study, with the results reflecting highly on the training. The results were measured in participant satisfaction, and the practical implications of the knowledge gained, with the results showing a statistically significant increase between pre-course and post-course scores [8]. Furthermore, multiple academic institutions across the United States have begun implementing leadership education in the form of student leadership development programs [9]. Harvard School of Dental Medicine, for example, launched a six-month leadership course targeted at postdoctoral dental students and focused on introducing key leadership concepts, theories, and the latest principles. Not only did this course provide the underlying skills for developing effective leadership behaviour, but also encouraged the immediate practice of core competencies [10]. Students engaging in university leadership programs, and people involved in an organization learn to be mature and self-disciplinary, possess optimistic attitudes, be flexible, action-oriented, and centred and when required, make revisions [11]. These skills can be carried into the workplace and replicated in different environments to achieve the best possible outcome.

In addition to academic education, dental students' perceptions of their teaching staff can influence the overall learning outcomes regarding

leadership. A survey conducted at the University of Nevada aimed to establish whether students' perceptions of their teaching staff's openness of communication, cooperative decision-making, and well-defined goals had a positive impact on the student's ability to gain leadership skills. The study itself implemented a twelve-question survey to assess the outcomes. The collaborative qualities of teaching staff demonstrated a significant positive relationship with students' leadership behaviour: a willingness to raise concerns, make suggestions, and work with others in their cohort [12]. Collectively, the educational approach (Figure 1) described in those studies,[8,9,10,11,12] established a positive relationship between a well-rounded education and assertive leadership behaviour in dental students, laying the foundations of skills to be used throughout their clinical careers.

Leadership opportunities

Closely aligned with education are the leadership opportunities presented by an academic institution for its students. A case study of the Senior Dental Leadership programme stated that the dental industry is lagging in students' leadership training. Although some may present with defined leadership skills without seeking opportunities, for most students, leadership encompasses a set of skills that need to be developed by pursuing various opportunities.^[13]

A recent review found that students who showed initiative and actively sought learning opportunities; such as pursuing volunteering opportunities, participating in research, or mentoring younger dental students, showed greater leadership prospects than those who did not gain this experience [14].

Oral health educators have an essential role in establishing a leadership culture among students and mentoring them on how to pursue the appropriate opportunities and gain the most from the experience. Besides leadership experience, organizations have proposed specific leadership competencies that dental students should aim to attain during their studies to prepare them for a

leadership role in a healthcare organization. These organizations defined leadership behaviour as "high charisma individuals who create followers through personal magnetism" [15]. Taking this definition, multiple avenues could be explored to attain these skills; from volunteering at a charity organization to being captain of a sports team, each teaches invaluable skills in building a following and leading other individuals. From the current literature and real-world examples, it is evident that leadership behaviour is obtained by showing initiative and gaining experience. Opportunities to gain leadership skills are rife, but if students are either not given the opportunities or choose not to seize them, they are at a disadvantage and will be lagging when entering the dental industry [15].

Factors that Influence Leadership in other Healthcare Systems

Management skill has been described as a critical factor affecting leadership behaviour among hospital managers, and this skill can be further divided into four sub-categories; self-management, people management, health services provision management, and nuclear management skills [16].

Self-management skill relies on emotional intelligence and maturity, being accountable for one's work and taking responsibility. Hence, this skill plays an important role in leadership behaviour. This is consistent with a study conducted by Harun and colleagues in 2017 [17] regarding emotional intelligence and leadership profiles of representative council students of Malaysian public universities, where in the study it was found that the students possessed both high leadership skills (84.04%) and high emotional intelligence (80.45%) suggesting a positive relationship between those two.

People management skills are often proposed as one of the determining factors of effective leadership behaviour, especially in a patient-facing role. However, people management skill does not solely rely on communication with patients but also on delegating tasks to team

members, resolving conflict, and providing motivation to employees [16]. Health services provision skill, on the other hand, refers to the ability of the leader to carry out their clinical role, understand the patient's needs, identify treatment processes and make use of relevant resources to achieve positive outcomes. Whereas regarding nuclear management skills, require resilience on the leaders' behalf. This factor involves managing human resources, being aware of specific rules and regulations applicable to the workplace and ensuring these are enforced [16].

There are many other factors which have been assessed for their influence on leadership behaviour in healthcare systems and together with the management skill as described above, these are summarised in Table 1.

Discussion and Recommendations

Effective leadership in dentistry can transform oral health within communities, and as a result, this can aid in reducing oral health inequalities across the globe [6]. Several factors that influence leadership development in dentistry have been described in the literature [8,14]. Skills develop from experience, and leadership is no exception to this. Whilst education portrays an essential factor in influencing overall leadership behaviour in dentistry, seizing leadership opportunities outside academia has also proven invaluable. In addition, strong mentoring from teaching staff is essential in providing leadership skills for dental students. Allowing students to speak up, make suggestions, and show initiative whilst teaching them academics enables them to gain the skills required to demonstrate effective leadership and influence them to exhibit leadership behaviour.

The prevalence of leadership opportunities and the overall level of experience can all drastically impact leadership skills in dentistry, with a profound impact being seen in dentists [8]. Leadership behaviour is a learned skill and requires sufficient experience to display clinical success and overall patient satisfaction. Although leadership behaviour can be gained through

experience, [18,19] and can be trained once a dental student becomes a qualified dental practitioner, practising leadership skills whilst pursuing a dental degree is recommended. Having demonstrable skills before entering the workplace will provide better preparation for a future dental professional to deal with challenges in a dental organisation. Moreover, it has been proven that leadership training is significantly associated with the development of leadership behaviour among dental students, [8,10] however less impactful among highly ranked health professionals such as Hospital CEOs [20].

A scoping review by Timofe and colleagues in 2017 [3] brought to light the fact that few studies have been done to assess leadership in dentistry. This review highlights that leadership is undeniably crucial in dentistry and the necessity of leadership training to promote effective leaders among dentists. Nonetheless, at that point, the leadership values in dental practice and specific skills that are potentially influenced by leadership behaviour are not clearly described.

In 2020, several authors have addressed the leadership values focussing on dental practice [2, 6, 28]. Meanwhile, Antoniodou in 2022 described several skills required for leadership development [29]. These skills are relevant to attaining leadership values in dental practice as described in the earlier studies [2, 6, 28]. For instance, the ability to actively support effective teamwork, encourage a healthy work environment in a dental practice and persuade patients to maintain/improve oral healthcare are several leadership values in dental practice [2, 6, 28]. These values can be achieved by implementing emotional intelligence skills which is one of the key components to develop leadership among dental practitioners [29].

Other leadership values that have been described are the ability oneself to articulate vision and build a legacy of success for his or her dental practice [28] can be obtained in the presence of competency in communication skills and a supportive role which are the other components

for leadership development [29]. One of the foremost leadership values in dental practice is the dentist's ability to enhance the quality of dental care services for the benefit of patients [28]. This value can be attributed to the presence of the following skills required for leadership development such as time-management skills, problem-solving skills and decision-making skills. [29]

Conclusion

This review highlights the importance of effective leadership behaviour in dentistry. A dental practice with effective leadership behaviour at its core will exhibit high measures of clinical and organizational success. The primary factors that influence leadership behaviour in dentistry, are described in two broad categories which are educational approach and leadership opportunities. An educational approach that positively influences leadership behaviour in dentistry includes training in several skills for leadership development and expressing collaborative qualities to students by teaching staff. Emotional intelligence skill, communication skill, time-management skill and decision-making skills are part of the recognized skills required for the development of leadership

behaviour in dentistry. Some of these skills (communication skills and self-management skills) have also been addressed as factors that positively influence leadership behaviour in other health professions.

Apart from the educational approach, dental student's participation in various leadership opportunities such as volunteering and research works will also contribute to the enhancement of their leadership behaviour. Finally, leadership behaviour in dentistry could also be influenced by the dental practitioner's working experience, as this factor has been demonstrated to significantly influence leadership behaviour among many healthcare professions (physician leaders and educators, nurses and medical students.)

Conflict of interest

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Table 1. Factors that demonstrate positive influence on leadership behaviour in healthcare systems

Factors	Influence/ Significance to leadership behaviour	Involved healthcare profession/sector	Author(s), Year
Management skills (Self-management skills, people management skills, health services provision skills, and nuclear management skills)	Positive relation	Hospital managers	Sarabi and Saleh, 2018 ^[16]
Leadership style (transformational style, value-based leadership)		Hospital CEOs, Medical Field	Janssen, 2004 ^[20] Pendleton and King, 2002 ^[21]
Leadership training/development programs		Nursing, midwifery clinical leaders	Wagner <i>et al.</i> , 2010 ^[22] Pizzirani <i>et al.</i> , 2020 ^[23]
Communication skills		Nursing students	Zilembo <i>et al.</i> , 2008 ^[24]
Culture of innovation		General medical practice	Apekey <i>et al.</i> , 2011 ^[25]
Age and experience		Physician leaders, medical students	McKenna <i>et al.</i> , 2004 ^[18]
Personal psychological states (trust in the manager), job satisfaction, work environment factors (such as work engagement and workgroup relationships)	Not significantly related	Nursing	Cummings <i>et al.</i> , 2008 ^[19]
		Healthcare leaders	Alilyyani <i>et al.</i> , 2018 ^[26]
Turnover (change or executive succession)		General healthcare	Gilmartin <i>et al.</i> , 2007 ^[27]
Values, gender, age, years of experience, Number of hours of leadership training in previous three years, Hospital setting (rural, urban, rural referral, critical access)	Negative relation	Hospital CEOs	Janssen, 2004 ^[20]
Negative workplace behaviours (bullying and incivility), burnout (emotional exhaustion and cynicism)		Healthcare leaders	Alilyyani <i>et al.</i> , 2018 ^[26]

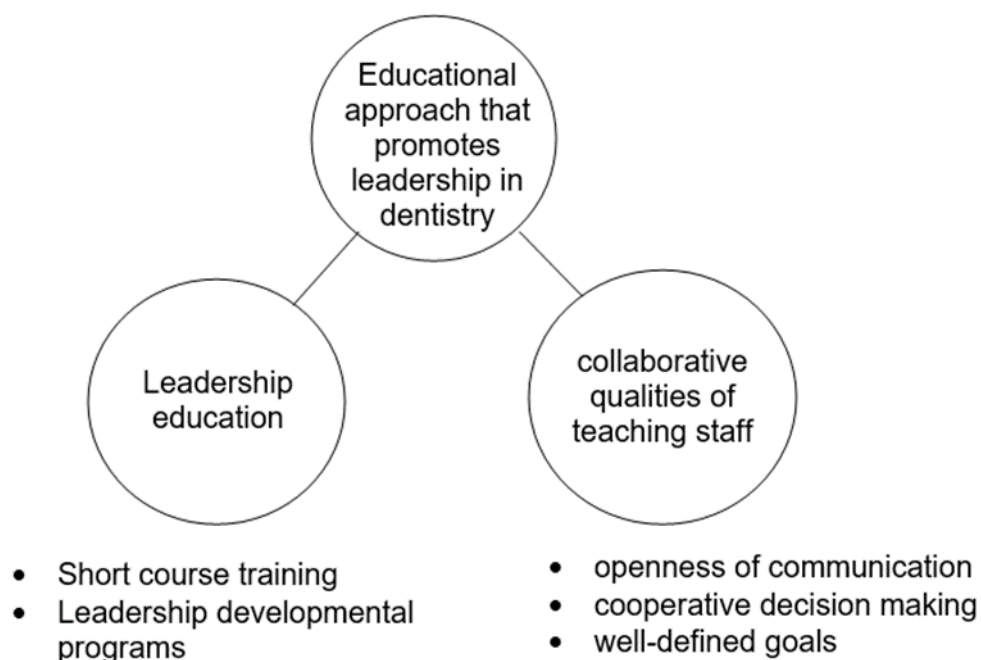


Figure 1. Educational approach that positively influences leadership behaviour in dentistry.

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