



## Scientific Research Report

## Voicing Beliefs on Global Leadership for Dentistry

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## ARTICLE INFO

## Article history:

Received 20 July 2021

Received in revised form

29 August 2021

Accepted 31 August 2021

Available online 14 October 2021

## Key words:

Dental leadership

Dental education

Access to oral health care

## ABSTRACT

**Background:** Dental leadership in different models of care is not well documented, and therefore the objectives of this study were to explore how dental leaders develop their own leadership and how they engage others to increase access to oral health services as well as to describe perceived challenges in developing coalitions for promoting oral health care.

**Methods:** We adopted a qualitative descriptive research methodology. We recruited dental leaders using a purposeful sampling approach and a snowball technique. Data were collected using a remote digital platform; we organised semi-structured interviews based on the LEADS conceptual framework. Saturation was reached after 11 interviews. Data analysis included the following iterative steps: decontextualisation, recontextualisation, categorisation, and data compilation. The analysis was performed manually, assisted by the use of QDA Miner software.

**Results:** Fourteen dental leaders participated in the study. Our analysis revealed 3 overarching themes: (I) lead self, with 3 subthemes: leadership insights; leadership traits; opportunity–role model dyad; (II) leadership strategies; and (III) challenges in leadership development, with 3 subthemes: limited engaged practice and workforce, valorise the image of dentistry, and lack of leadership training.

**Conclusions:** Our research findings showed that, despite a limited scope of leadership in dentistry, the dental leaders recognise its importance and acknowledge the need for formal training and mentorship at different levels. This study identified challenges in dental leadership development that could further orient dental education programmes and support the implementation of evidence-based, high-quality, and efficient oral health services.

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## Introduction

In the field of dentistry, the concept of leadership is generating growing interest, especially with respect to oral health disparities and access to dental care.<sup>1–3</sup> Like other health care professions, dental communities and organisations tailor, define, and characterise leadership based on the profession's specific context. For instance, the definition of leadership in dentistry has evolved over time. In the past 2 decades, studies on dental leadership were dominated by heroic and post-heroic leadership theories.<sup>4</sup> These visions privilege the role of designated leaders, usually through their hierarchical

position, without questioning the role of dentists' teams or the involvement of other professionals in making changes happen.<sup>5–6</sup> Therefore, some authors recommend the development of more meaningful approaches, because leadership occurs as a practice rather than from the traits or behaviours of individual.<sup>7</sup>

As a global voice for the dental profession, the International Dental Federation advocates for dental leadership in its recently unveiled "2030 Vision: Delivering Optimal Oral Health for All."<sup>8</sup> Achieving these goals will be challenging and will not be accomplished by isolated individuals without the global involvement of the dental profession and networks for dental care at international and national levels. The Province of Quebec dentistry regulatory bodies and key stakeholders have been active in advocating for oral health and have shown leadership in projects such as Bouche B and the

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<https://doi.org/10.1016/j.identj.2021.08.057>

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integration of dental teams in primary care.<sup>9-11</sup> However, little is currently known about leadership in dentistry. Therefore, the objectives of this research project were as follows:

1. Explore how dental leaders develop their own leadership.
2. Explore how dental leaders engage others to increase access to oral health services.
3. Describe challenges perceived by dental leaders in developing coalitions for promoting oral health care.

## Methods

We adopted a qualitative descriptive research methodology<sup>12</sup> to allow a deep understanding of the specific experiences of study participants. By adopting this *methodology of proximity*,<sup>13</sup> we sought the closest *place* to both the participants' and the researchers' experience.

The study was conducted in the Canadian province of Quebec; we recruited study participants considered leaders in the field of dentistry using a purposeful sampling approach and a snowball technique. Through the research team's knowledge of the Quebec dentistry network, we first created a list of 29 potential participants. This list was enhanced by inserting short web biographies of these individuals and was then sent to all team members. The latter added relevant data to the biographies and ranked their choices of participants in order of priority. After discussion, the research team selected 22 people according to dentists' actions and impact on the dental community (Appendix A). This list included dentists working in different settings: academic, public sector, or private sector. We then contacted them by email, inviting them to participate in the study. Two reminder emails were sent to those who did not respond to the first invitation.

Data were collected using a remote digital platform; we organised semi-structured interviews (n = 14) that were audio-recorded and lasted approximately 1 hour. Data collection took place between May and November 2020. Saturation was reached after 11 interviews.

Prior to the interview, the participants were asked to electronically read and sign a consent form approved by McGill University's Faculty of Medicine Ethics Committee.

An experienced researcher (HH) in qualitative research and interviewing techniques conducted the interviews using an interview guide designed based on the LEADS conceptual framework.<sup>14</sup>

This guide included open-ended questions corresponding to the 5 domains of the framework, to reflect the individual, relational, and strategic processes that dental leaders use to adapt to and/or guide change. Some modifications were made to the preliminary interview guide prior the interview: Several questions were eliminated to focus on the research objectives, namely the individual and the strategic processes that lead to changes in the delivery of oral health services and better dental education. A few questions were added to this adapted version in order to reflect the new reality of the COVID-19 pandemic crisis but also to take into account the specificity of the Quebec dental care system (Appendix B).

Table 1 shows the links amongst the research objectives, the questions in the interview guide, and the expected outcomes.

The analysis process included the following iterative steps: decontextualisation, recontextualisation, categorisation, and data compilation.<sup>15</sup> The research team conferred at each of these steps and examined discrepancies until reaching a consensus. This involvement of the research team strengthened the analysis, assuring that no relevant data were excluded and also reducing the personal biases of the principal investigators, thereby contributing to the confirmability and the credibility of the analysis. Data analysis was performed manually and was assisted by the use of QDA Miner software. Table 2 shows an example of a coding tree.

The reliability of the study was maximised using COREQ qualitative research guidelines.<sup>16</sup>

## Results

### Study participant characteristics

The study participants were dentists (8 women and 6 men) whose leadership activities addressed various disadvantaged populations including adults, children, and elders, as well as those with special needs (Table 3). Six dentists were working full time in universities or in a governmental institution, 3 were working only in private practice (1 in solo practice and 2

**Table 1 – Correspondence amongst the research objectives, the questions in the interview guide, and the expected answers during data collection.**

Study objectives	Indicators	Questions in the interview guide	Expected results
1. Explore how dentists develop their own leadership	Driving factors Individual processes	2, 3, 8	Participants' comprehension of the leadership concept Participants' perception on personal strategies used in leadership development
2. Explore how dental leaders engage others to increase access to oral health services	Teamwork example	9, 10	Participants' perception on relational strategies in leadership development
3. Describe challenges perceived by dental leaders in developing coalitions for promoting oral health care	Situate leadership actions in global, specific Quebec context Barriers and facilitators	6, 11, 12 4, 5, 7, 8	Participants' perception on strategic, macro influences related to leadership Participants' perception on factors influencing leadership capacities

**Table 2 – Example of a coding tree.**

Theme	Category	Primary codification	Selected (reviewed against transcription)	Excluded from the category
Opportunity–role model dyad	Driving factors for leadership	E1 – Frustration - not enough tools for patient-centred care		x (context)
		E1 – Role model - Family	x	
		E10 – Interest in giving back	x	
		E11 – Not enough expertise		x (personal feature)
		E11 – Academia - time to think		x (education)
		E11 – Seems important		x (trait)
		E11 – Spirit (business)	x	
		E12 – + value		x
		E12 – Not enough dental services		x (context)
		E12 – + value (2)		x
		E13 – Opportunity (colleagues)	x	
		E13 – Giving back	x	
		E14 - Need to get along alone		x (context)
		E14 – Spirit (business)	x	
		E14 – Role model – inspiring person	x	
		E14 – Opportunity	x	
		E2 – Success in previous projects	x	
		E2 – Other successful initiative (nondental) – Community spirit	x	
		E3 – Belief that can make a change	x	
		E4 – Opportunity (colleagues)	x	
		E5 – Opportunity	x	
		E5 – Opportunity (2)	x	
		E5 – Role model - Specialists	x	
		E6 – Feeling that the person can make a difference		x
		E7 – Impression that the person help others	x	
		E8 – Not enough dental services for perceived dental needs		x (context)
		E9 – Interest in advancing knowledge		x (trait)
E9 – Advance community + knowledge		x (trait)		
E9 – Creativity		x (trait)		
E9 – Interest in standardisation		x (context)		

as associated practitioners in group practices), and the other 5 were sharing their time between academia and private practice, as associated dentists. The dentists involved in academia were members of oral health research networks and conducted research programmes in periodontology, gerodontology, and special care dentistry. Some were also members of the Association of Public Health Dentistry of Quebec.

**Table 3 – Sample characteristics.**

No.	Gender	Graduation year	Main domain of activities
1	M	1981	Academic
2	M	2014	Hospital and academic
3	M	1996	Private practice and academic
4	F	2005	Public health
5	F	1990	Academic
6	F	2013	Hospital and academic + private practice
7	F	2016	Private practice
8	F	1987	Private practice
9	M	2002	Academic
10	M	1992	Hospital and academic
11	M	1985	Academic
12	F	1986	Public health
13	F	1993	Academic
14	F	2016	Private practice

Over half of the participants ( $n = 8$ ) had more than 20 years of professional experience. Eleven study participants had a postgraduate degree in a dental specialty or in a health-related field, and 3 had a PhD. Only 2 of the study participants had just a DMD degree with 3 years of practice experience.

### Themes

Our analysis revealed 3 overarching themes: (I) lead self, with 3 subthemes: leadership insights, leadership traits, and opportunity–role model dyad; (II) leadership strategies; and (III) challenges in leadership development, with 3 subthemes: limited engaged practice and workforce, valorise the image of dentistry, and lack of leadership training. These themes covered the study objectives.

#### I. Lead self

This theme presents the results related to the study participants' acquisition of leadership capacities at an individual level.

##### I.1 Leadership insights

All participants acknowledged the importance of leadership. However, it was mainly expressed as an entrepreneurial view or dental community spirit. In fact, leadership was mostly related to dental practice management. According to the participants, dentists need leadership to run and organise

dental clinics as well as to supervise the work of the various members of the dental team:

... the dental clinic hierarchy itself requires that the dentist be the leader, ok? Because we are responsible for a team, we are the team leader, you know? We have to dictate how to run the practice. So we are already the leader of the team. (e3)

In line with this understanding of leadership, most participants did not consider themselves as leaders in the dental profession, but rather as dental practice managers. The younger dentists expressed having leadership issues because they were not feeling ready for solo practice after graduation. They considered their lack of leadership training to be the root cause of their difficulties in teamwork and in the management of conflicts in a day-to-day practice; this frequently led to disengagement and dropout in decision-making processes and to enrolling in group practices, residency programmes, or management educational programmes.

### **I.2 Leadership traits: humility, passion, and competence**

The study participants perceived humility, passion, and competence in the profession of dentistry as the main attributes of a leader. A few of them emphasised the positive impact of humility on others' behaviours as a leadership outcome. Accordingly, they expressed that humility allows the leader to be open to different perspectives and different points of view, thus being able to achieve their mission collaboratively:

I think it takes a lot of humility [...] of the leader, he/she must be humble enough not to take all the place, and to ensure that people feel they are making a significant contribution to the goal. (e9)

Participants perceived that the leaders' passion was reflected in their self-investment in knowledge acquisition and knowledge transfer. Competence and superior professional performance also appeared as an important characteristic of leadership. This further reflected specific ways of taking responsibility, such as leading by example and inspiring others. A leader was also considered to be an individual using scientific arguments and evidence to communicate with the team. Participants considered competency as essential, especially in private practice where dentists' expertise would favour employee recruitment and retention and ultimately improve the organisation's performance.

A leader must have: 1. A way of preparing, because he must be able to answer various questions asked in his practice, but with a scientific basis there ... and the second thing about a leader, is that ... he has to be able to show people his skills, ok? (e11)

### **I.3 Opportunity–role model dyad in leadership development**

The vast majority of the participants saw openness to opportunities offered by peers or professors in dental schools as a starting point in the development of individual leadership:

... when I was in dental school I didn't really imagine this, this wasn't something that I, from the beginning, knew that I wanted to do, it sort of ... **opportunities** came up, (...), so it's kind of a combination of maybe seeing some people do that already and then just this ... **opportunity** that ... sort of grew. (e6)

Participants recognised and cherished the impact their professors and peers had on their personal leadership capacities. Despite different personal and professional backgrounds, having had the opportunity to find oneself in a prone-to-leadership situation seems to have stimulated interest and active involvement throughout their entire professional career. The study participants appeared concerned with factors affecting constant opportunities offered to peers and dental students. Mentoring was thought to be necessary in order to develop individual leadership and in engaging others:

I think it's important...if they don't know that you can work in a hospital and a private practice or if they don't know you can do mobile dentistry or I don't know, working up North, all these different options that ... that if they don't have an example of it, they might not even dream about it ... (e6)

## **II. Leadership strategies**

This theme presents the results illustrating strategies adopted by dental leaders in order to engage others into change processes and corresponds to objective 2 of this study.

The study participants envisioned that a dental lead should rethink the profession of dentistry and encourage interprofessional collaboration to solve access and coordination issues in oral health services delivery. Accordingly, they expressed that this would involve several steps including reaching out, guiding, community outreach, and networking. A couple of participants mentioned strategies geared towards obtaining stakeholders' buy-in to support a specific course of action. In academic environments, several study participants related leadership to community outreach involving students and to raising public awareness regarding various oral health issues:

We tend to try to get the students more involved, so that promotes leadership, it promotes community outreach and once they start early, they tend to want to do it after they graduate. (e10)

Networking, informal in nature, was considered an important leadership strategy to facilitate partnership and was used to expand the circles of acquaintances and to increase awareness of news and trends in dentistry.

## **III. Challenges in leadership development**

This section presents results addressing the perceived challenges in developing coalitions for promoting oral health care and responds to objective 3 of this study. Overall, the participants had lack of knowledge about the strategic development in oral health services delivery at a macro level.

Some mentioned a professional dilemma and hoped for a magical solution:

We cannot take away the technical side of dentistry. ... We hope that this model will change a little, but it's a big dilemma. ... We will have to send messages to certain politicians, but we must have a strategy and there, I do not feel the strategy! (e1)

### III.1 Limited engaged practice and workforce

Some participants believed that the type of practice in dentistry, that is, private and *in silo* practices, as well as the limited number of dental workforce compared to other health professionals represented considerable barriers in initiating any strategic leadership processes and forging strategic coalitions for oral health. The study participants expressed that they had very little or no influence on changing the status quo in health and oral health services delivery models. Some of them expressed a lack of recognition of their credentials acquired through formal postgraduate education in the health care system, which limited their impact on decision-making processes:

If I compare with other professions, not many of us have leadership opportunities. ... We are not a lot to fight to get things done, we don't have the strength of a large group. I always found that this was a challenge. (e13)

### III.2 Valorise the image of dentistry

Some participants expressed that the dental profession had a negative image and a low political priority given to oral health; this aspect was considered important by the study participants because they found it to be a source of discouragement for adopting and sustaining leadership strategies. A few participants stressed the need to increase the credibility of the profession of dentistry:

Politicians are going to have a job: stop confounding beauty care and dog grooming with dental care! I think that unfortunately, in Canada, we have seen too much dentistry as an aesthetic, luxury service. And that! I think we have a job there. (e1)

### III.3 Lack of leadership training

The majority of participants recognised a need to address leadership training at the undergraduate level. Most participants stated that their undergraduate training did not prepare them for leadership, its global dimensions, and strategies for dental practice. According to them, exploring leadership concepts was not part of their dental curricula, which were very dense and focused on clinical skills and knowledge:

It's a programme that's so condensed, that's so tight, I think it's harder to be a part of that. (e7)

On the other hand, there was no common view amongst the participants on how leadership should be taught. Some believed that a few hours of class would be sufficient, and others mentioned interdisciplinary training and internships. In addition, some study participants expressed that graduate-level education is more effective in developing leadership

skills due to the lack of time during the undergraduate dental programme.

## Discussion

To our knowledge, this is the first time that the perspectives of dental leaders have been explored to encourage leadership in the profession of dentistry. Our research findings show that, despite a limited scope of leadership in dentistry, dental leaders recognise its importance and acknowledge the need for formal training and mentorship at different levels. These results are consistent with results from other studies that showed that dental education programmes do not prepare dentists for leadership roles<sup>17,18</sup> and demonstrate the key role of academia in training dental students for internationally recognised and evidence-based leadership skills.<sup>19</sup>

Our results are also largely consistent with findings at the international level, related to the role of dentistry in global health and the challenges faced by the profession. The work of different organisations reflects major challenges in the positioning of the profession in global health policies, in coalition building, and in governance.<sup>20</sup> Addressing these types of challenges requires an understanding of the complexity of dental practice environments, with the goal of achieving socially engaged leadership. Our study reveals that the tendency to seize opportunities and the interest in knowledge shown by dentists could be exploited in order to overcome many challenges in dental profession leadership.

Our study participants didn't consider themselves *a priori* as leaders and believed that humility, passion, and competence represent the main significant leadership attributes. Humility has emerged as a guiding principle in dental leaders' behaviour, oriented towards patient-centred care in other studies conducted in Quebec.<sup>21</sup> Humility also refers to individualistic and heroic theories of leadership, which are increasingly questioned by contemporary studies.<sup>22-24</sup> These studies raise the need for collaborative and in-practice leadership, as leadership becomes more necessary in the profession of dentistry.<sup>25-29</sup> Our study participants highlighted interprofessional collaboration and creation of leadership opportunities in this context. In fact, the profession is still relatively closed to external leadership opportunities, and it is essential that academics or those working in the public sector create shared leadership positions in health-related disciplines.

Although our results did not find a common vision towards strategic leadership, several related strategies were demonstrated such as networking, engaging peers and other professionals, and education. The participants thought that these strategies could shift and reframe professional boundaries and thus initiate changes in future dental leadership.

Our study has some limitations. First, our sample was relatively small. However, in qualitative research, the number of participants is rarely determined in advance and the size of the sample is determined by the theoretical saturation of the data.<sup>30</sup> Although limited, our sample size fits well in the norms of this type of research. Second, although we had diverse profiles of study participants representing public health bodies, academia private practice, as well as professional associations, they were exclusively dentists. Other research has shown that

leaders in the dental field are not always dentists and could in fact belong to different health professions.<sup>31</sup> In addition, research conducted in health services organisations in the public and private sectors suggests that although professional leadership has distinct characteristics because of the difference in governance, they face similar challenges with regard to the nature of the main tasks, with control being exercised through training and standardisation.<sup>32-35</sup> Therefore, the perspective of other professional groups concerned with the dental field could complement our findings and thus contribute to a better understanding of the impact of leadership in the field of dentistry.

Finally, we explored common aspects of leadership only in the province of Quebec, thus limiting the transferability of our results.

### Conflict of interest

None disclosed.

### Acknowledgements

The authors would like to acknowledge the contributions of all the participants in this study. We also thank our collaborators: Dr Lucie Papineau and Dr Tasnim Alami.

### Author contributions

Each author has participated in the research and/or article preparation. Thus, as a first author, HH proposed the study design and was involved in all phases of the research project, as well as in the preparation of manuscript draft. FP and ABJ documented the list of potential participants in the study. CB, AD, and EE collaborated in the data extraction and coding. As principal investigator, EE collaborated in the study design and secured funds for the study. The research team collectively contributed to the data interpretation and critical revision of the manuscript. All authors have approved the final article.

### Funding

This work was supported by RSBO funding for a major structuring project.

### Supplementary materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.identj.2021.08.057.

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