Factors, Realities, and Experiences of Employment as a Dental Assistant in Canada

Final Report on a National Survey of Canadian Dental Assistants

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Executive Summary

Exploring the factors, realities, and experiences of employment of a dental assistant (DA) in Canada are novel realms of research and knowledge building. The research and evidence on experiences of dental assisting in Canada is extremely underdeveloped. In this report, we address the gap in knowledge on Canadian dental assisting by presenting findings from a Canada-wide survey of dental assistants. The novel research presented in this report illuminates experiences of dental assisting in Canada through an examination of three topic areas: demographics, educational context, and work context. This report does not make recommendations for improving retention and recruitment practices of dental assistants in Canada, but rather provides data and evidence that identifies opportunities for support. It is the objective of this report to unpack how the factors, realities, and experiences of DA employment in Canada have important implications for the current and future state of the workforce.

A Canada-wide survey of DA suggests that, overall, DAs describe their current workplaces as healthy environments (See Figure 25). Additionally, Canadian DAs report that they have healthy working relationships with their current employers and colleagues (See Figure 26 and 27, respectively). DAs feel well-prepared by their dental assisting education for clinical practice and report little difficulty in finding employment opportunities. At the same time, however, a concerning number of DAs report that they have experienced mistreatment in the workplace (See Table 4) and feel that they are not fairly compensated for their contribution to their oral health care team (See Figure 24). A thematic analysis of open-ended questions revealed that, while the majority of DAs describe their current workplace situations as healthy, they were more than likely to have experienced harassment in prior workplaces. As a result, DA career trajectories are characterized by experiences of harassment followed by either 1) a complete exit from the profession, or 2) the search for a safe and healthy workplace. To that point, the data presented in this report demonstrates there may not be a shortage of DAs entering the field, but rather a surplus of those leaving before retirement due to experiences of harassment, disrespect, and poor remuneration. Below, we summarize the key take home messages in each of the topic focus areas and highlight the major implications this new evidence may have for current retention and recruitment practice.

Demographics

- The survey represented a wide-range of DA experiences (n = 1,627) with participants from every province, rural and remote communities, and diverse language backgrounds.
- As a qualitative study, data saturation was determined by monitoring the open-ended questions responses while the survey was open; responses and themes began to become redundant, which pointed to data saturation being reached.
- The majority of DAs surveyed identified as women (n= 99.4%), English speaking (n= 81%), and as first-generation DAs (n= 68%).
- The survey was limited in its ability to represent DAs in the territories, where there was
 minimal participation, and did not collect data on identity markers apart from gender,
 which hampers the ability to conduct an intersectional analysis of the experiences
 reported.

Implications for retention and recruitment practices. Dental assisting is highly feminized and, according to the most recent pay equity legislation and surrounding research, is at risk for a chronic wage equity gap; this gap is even wider for women of colour and Indigenous women (Employment and Social Development Canada, 2018). Though, the extent of the wage equity gap was not measured in this report or elsewhere, retention and recruitment practices need to be cognizant of current wage equity challenges to ensure that future pay scales do not widen or contribute to a gap.

Education

- DAs described positive education experiences; they feel well-prepared by their DA training program (n= 72.4%) for clinical practice.
- The vast majority of DAs surveys reported that they attended an accredited DA training program (n= 89.6%) and were certified dental assistants (n= 87%).
- DAs are typically not aware of dental assisting as a career options during high school or through vocational counselling (n= 66%).

Implications for retention and recruitment practices. Current recruitment practices should consider outreach to secondary school programs and vocational counsellors; the data demonstrates that there is a lack of awareness about dental assisting at the high school level.

Work

- The majority of surveyed DAs are working full-time in one location (n= 70.7) in a private practice setting (n= 70.6%).
- Just under one-quarter of surveyed DAs are supplementing their income with work outside the profession (n= 23.1%).
- Just over two-thirds of DAs surveyed (n= 67%) said they do not plan to leave the practice where they currently work, while 14% said they do plan to leave and 19% were unsure (See Appendix A).
- A significant portion of DAs surveyed do not feel that they are fairly compensated for their contribution to their oral health team (n= 38.8%).
- DAs report mostly positive working relationships with their current dentists and colleagues (n= 78.8% and n=82.5%, respectively), but they also report that they have experienced unacceptable patient behaviour (n= 61.2%), criticism in front of patients (n=43.3%),

work place bullying (n= 43.1%), unacceptable behaviour from a boss or supervisor (n= 42%), violence in the workplace (n= 16%), and sexual advances in the work place (n= 7%).

• The data suggests that surveyed DAs are happy and healthy in their current workplaces but have experienced harassment at some point during their career.

Implications for retention and recruitment practices. The remuneration for DAs should be evaluated to ensure their vital contributions to the oral health team are financially compensated at a level that represents their skilled and professional contributions to the dental practice; this evaluation must include DAs input. Employers must examine their workplace environment and communication practices with and between their staff members and patients. Based on the survey responses, there appears to be a culture of bullying, harassment, and disrespect in a number of dental practices, which is affecting their ability to recruit and retain DAs.

Introduction

The Canadian Dental Assistants' Association (CDAA) called upon researchers from the University of Ottawa and Queen's University to prepare a proposal for work that would support member activities in the short-term to understand the current challenges regarding dental assisting (DA) retention, recruitment, and employment in the sector. According to informal dialogue with Canadian national dentist bodies, dentists across the country believe there is a shortage of DAs and that dentists face challenges in recruiting, hiring, and retaining dental assistants. To date, evidence to support reports of a DA shortage in Canada has been exclusively anecdotal.

At the same time, member and non-member bodies of the CDAA are reporting a shortage of work for both new graduates and seasoned DAs. In a June 2018 workshop coordinated by the CDAA and attended by the organization's board of directors and members, representatives from member organizations across the country expressed concern regarding the profession's rising attrition rates, low wages, and lack of secure full-time employment. Again, this evidence was observational and anecdotal. At this time, it is unclear if there is in fact a DA shortage or rather, if inadequate working conditions (i.e., remuneration, benefits, and full-time positions) act as a barrier to gainful employment for DAs. To further complicate our understandings of DA employment, there are no data at the national, provincial, or territorial levels to understand the landscape of employed, under-employed, or unemployed dental assistants. Some provincial associations do gather this information from their members, but this data is insufficient to describe a national experience of DAs. Also, there are no qualitative analyses that describe the barriers and facilitators of DA employment.

The lack of available data on the factors, realities, and experiences of employment as a DA in Canada hampers organizational capacity for evidence-informed planning. In this report, we present findings from a series of three research activities that were commissioned by the

CDAA, in partnership with the CDA, to understand the current state of dental assisting in Canada.

Background

In partnership with the CDA, the CDAA commissioned three research activities: 1) a rapid review of the published and grey literature on dental assisting; 2) the development and dissemination of a Canada-wide survey of dental assistants; and 3) a final report and analysis. The overarching objective of all research activities was to identify and describe the current state of the dental assisting workforce in Canada.

1. Rapid review of the literature

The primary objective of the rapid review of literature was to inform the current state of the dental assisting workforce in Canada, including barriers and facilitators to employment in the sector. As a secondary objective, the review informed the development of a national survey for Canadian dental assistants.

The rapid review drew on evidence available in the published and grey literature, including academic articles, organizational and institutional reports, and publicly accessible information, including social media, on DA. Unfortunately, the published and grey bodies of literature related to the topic are quite underdeveloped. Our initial search strategy was designed to capture sources from the past five years; however, it was revised in consultation with the CDAA to include sources from the past ten years because very little material was found. Despite the revision, only eight published articles and one grey source were found to be related to the research at hand. The details of our methodology are described in Appendix 1.

The published literature on dental assisting, though sparse, indicated important trends in recruitment and retention in the American and Canadian contexts. For example, in one article, a dental assisting shortage in California was confirmed using economic data, wherein a wage increase beyond that of inflation indicated a shortage while wage stabilization indicated a surplus (Brown et al., 2007). Current remuneration data on Canadian DAs suggest there may be a shortage, although it is difficult to confirm due to lack of consistent wage data across the provinces and territories (CDAA, 2014). From a Canadian perspective, it was posited that the perceived shortage of DAs may be due to lack of uniformity across education and accreditation pathways at the provincial level, thus creating a training hierarchy within the profession. Canadian published literature also highlighted the challenges associated with place of practice: DAs living in rural and remote areas face geographical and resource-related challenges for certification, which may deter the growth of the profession in these areas (Bosco & Oandasan, 2016). Overall, however, the extreme dearth of literature that describes the DA workforce in Canada, and the barriers and facilitators to employment in the sector, limit a thorough analysis.

The review of published literature was complemented by an environmental scan of grey literature, which included a review of institutional and organizational reports as well as social media platforms. The review of grey literature garnered detailed and rich findings on the experiences of dental assisting in Canada, predominantly from major social media platforms. For example, the grey literature suggested that the retirement of DAs who are part of the baby boomer cohort may result in a workforce shortage. Adding to the loss of experienced DAs in this age cohort, discussion threads and professional inquiry websites, showed that established and older DAs face age discrimination from hiring dentists or dental practices, insufficient remuneration, and unhealthy workplace culture. Social media platforms also pointed to harassment and violence in the workplace as a current area of concern for DAs. The subject of respect and violence was a common topic in DA discussion boards, where

discussants expressed that the lack of respect and, in some cases, violence experienced from dentists and patients, were regular parts of their DA workplace.

Canadian dental assistants' expressed experiences of violence and harassment from dentists, colleagues, and patients as told on social media, is echoed in a recent CDAA survey of DAs. The findings from the CDAA Healthy Workplace Survey, alongside the information obtained on discussion boards and social media point to a systemic issue of violence, harassment, and bullying that is directed to DAs in Canada. These findings, including that from the rapid review of the literature and input from the CDAA and the CDA, informed the development of a Canada-wide survey for DAs, which is described below.

2. Canada-wide survey of dental assistants

Upon submission of the rapid review of literature, the researchers worked collaboratively with representatives from the CDAA and CDA to develop a Canada-wide survey tool for DAs. An initial draft survey tool was presented by the researchers to the CDAA and CDA on January 8th, 2019. In an iterative process and over the course of approximately two months from January to March, 2019, the researchers further refined and developed the online survey. The researchers incorporated feedback from Board members from both the CDAA and CDA. Ultimately, the survey was structured with questions in three topic areas in dental assisting: demographics, education, and work context. The survey draft was finalized March 1st, 2019 and then promptly sent for French translation. The links to the online surveys (French and English versions) were disseminated via CDAA provincial member organization's listservs, social media, and personal networking on March 4th. 2019. The online survey opened for participation on March 5th and closed on March 25th, 2019, the timing of which was determined in consultation with the CDAA and CDA.

3. Final report on findings

As the final research deliverable, the researchers were contracted to deliver a final report on findings from the survey and rapid review of literature. The final report includes qualitative findings from the survey (e.g., demographic results and certification levels) as well as a thematic analysis of the qualitative data collected on the topic of work context. The objective of the report is to provide an analysis on the current state of the DA workforce in Canada and, in particular, barriers and facilitators to employment in the sector.

The report begins with an overview of the DA workforce in Canada. Then, the report presents findings from each topic area: 1) demographics, 2) education, and 3) work context. Results are presented for each question in the Canada-wide survey of dental assistants. Where applicable, a brief analysis is provided for survey question results in the topic areas of demography and education. Finally, the researchers present a robust thematic analysis of participant responses to questions on the topic of work context

Overview of Dental Assisting in Canada

The DA profession is one of the most varied roles in the oral healthcare system today. DAs work as part of integrated health-care teams and predominantly alongside dental hygienists and dentists to provide oral care to patients. Though duties and scope of practice varies by regulatory jurisdiction, DAs are most commonly regarded as both clinical and administrative assistants. Common duties of a clinical assistant may include exposing radiographs, intra-oral procedures, and infection control protocols, while administrative assistants or dental receptionists may work at the front desk to assist patients and support office operations (ODAA, 2018).

The DA workforce is mainly found in private practices, but there are also positions in hospitals, regional health units, community health centres, clinics, private care homes, education institutions, and with the Canadian Armed Forces (CIHI, 2018). Certain provinces have their own governing body; in others, DAs are regulated by dentists. DAs practice across Canada, although are not regulated in the provinces of Ontario and Quebec or in the three territories (CIHI, 2018). This means that many DAs still work in Ontario and Quebec, but did not take the National Dental Assisting Examination Board (NDAEB) exam. In 2017, there were no DA candidates from Nunavut, the Northwest Territories, or the Yukon (National Dental Assisting Examining Board, 2017). Despite the absence of regulatory legislation in Ontario and Quebec, certification from professional member organizations in provinces or territories without regulation is typically expected by an employer. For example, the Ontario Dental Assistants' Association (ODAA) offers certification to DAs who complete the following:

- 1. Graduate from an approved dental assisting program;
- 2. Successfully complete all National Dental Assisting Examining Board exams;
- 3. Maintain ODAA membership in good standing;
- 4. Commit to the Code of Ethics; and

 Commit to maintaining certification by paying annual dues and commit to continuing education (ODAA, 2018).

In 2016, CIHI reported there were approximately 20,771 DAs working in Canada. Dental assisting is an extremely feminized profession: more than 99% DAs are women (CIHI, 2017). In a 2014 report commissioned by the CDAA, researchers found that DAs had an overall unemployment rate of 3.7%. The Canadian Occupational Projection System (COPS) similarly reported a 3.2% unemployment rate in 2016 (Government of Canada, 2017). The COPS report also stated that the national average hourly wage had increased from 2011 to just under \$24 (CDAA, 2014). According to the COPS, DAs in Canada are "expected to face labour surplus conditions over the period of 2017-2026 at the national level" (Government of Canada, 2017, para 1.) This prediction contradicts notions that there are not enough DAs in Canada.

NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	Territories
258	NA	746	528	NA	5,238	1,296	1,162	5,525	6,018	NA

Table 1. Number of dental assistants by region, 2016¹

CIHI. (2017). Canada's health care providers: Provincial profiles, 2007-2016 data tables

¹ In some regions, data was not accessible because dental assistants are not required to register with their College or Board; this does not mean that DAs do not practice in these regions.

Methodology & Analysis

The qualitative survey results² were analyzed using thematic analysis. In broad terms, thematic analysis is understood as a method for "analyzing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79). A theme, Braun and Clarke (2006) argued, captures something important about the data in relation to the research question and "represents some level of patterned response or meaning within the data set" (p. 82). Social scientists argue that thematic analysis should be seen as a foundational method for qualitative analysis because it provides core skills that are useful for conducting other forms of qualitative analysis (Braun & Clarke, 2006).

Braun and Clarke (2006) identified six steps in thematic analysis to help researchers locate thematic analysis in relation to other qualitative analytic methods: 1) familiarize yourself with your data, 2) generate initial codes, 3) search for themes, 4) review themes, 5) define and name themes, and 6) produce the report. It is also important to note that researchers have successfully used thematic analysis to explore themes in health, healthcare, and health workforce issues (Jenkinson, Kruske, and Kildea, 2017). For example, Jenkinson, Kruske, and Kildea (2017) used feminist thematic analysis to foreground issues of power and dominance in their study of experiences of women, midwives, and obstetricians when women deny recommended maternity care. In the context of this research, thematic analysis aided in elucidating complex themes surrounding the barriers and facilitators to employment as a DA in Canada.

The researchers developed a thematic extraction tool (TET) in order to facilitate a thematic analysis of the qualitative survey data. The TET was developed using a Microsoft

² The researchers did not conduct a thematic analysis of all survey questions. A thematic analysis was only conducted on all the open-ended question responses. Specifically, data from the work context section of the survey (i.e., questions 41-45) were thematically analyzed.

excel spreadsheet. The researchers read the survey data answers, which prompted the introduction of themes. The themes were organized into columns and corresponding quotes were inserted into the rows for each question. The TET facilitated the collection and analysis of prevalent themes as well as extraction of specific participant quotes.

Demographic Context

In the first section of the survey, participants were asked standard demographic questions. The objectives of the demographic questions were to garner a contextual understanding of the general makeup of the profession in regards to gender, language, and region of practice. There was a total of seven questions asked in the demographic section, including:

- How old are you?
- To which gender to you most identify?
- In which province or territory do you practice?
- Do you practice in a community or setting that is considered rural or remote?
- What is your postal code?
- What languages are you fluent in?
- Are you a first generation DA?

In the next section, we present the data tables and figures for the demographic results. Some questions were not translated into figures or tables. Specifically, we do not present the data on participants' postal codes, because place of practice (e.g., province or territory) as well as practice setting (e.g., rural, urban, or remote) were captured and presented for other questions. Additionally, because some provinces had very few respondents, postal code data could put into jeopardy participant anonymity.

Demographic Results

Figure 1: How old are you? French and English results combined.

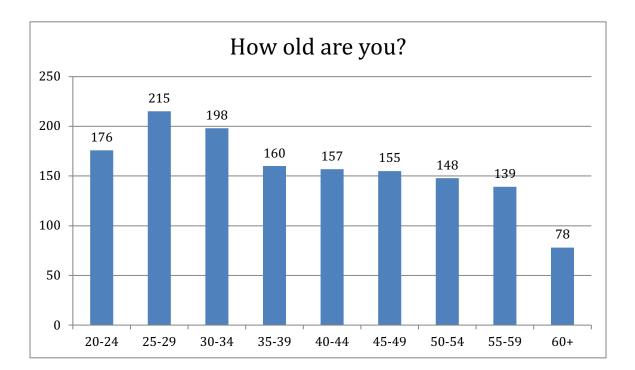


Table 2: To which gender do you most identify?

To which gender do you most identify?				
	Woman			
French	100%			
English	98.8%			

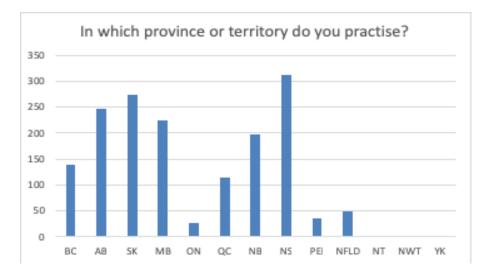
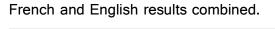
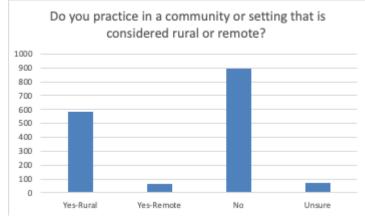


Figure 2: In which province or territory do you practice?³ French and English results combined.

Figure 3: Do you practice in a community or setting that is considered rural or remote?





³ We received 2 responses from NWT which do not appear on this figure due to size.

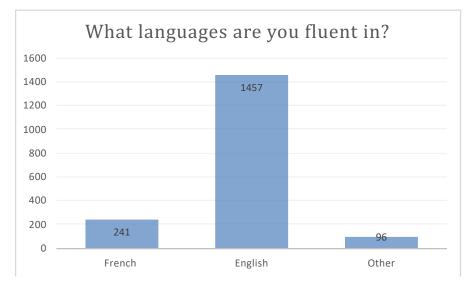
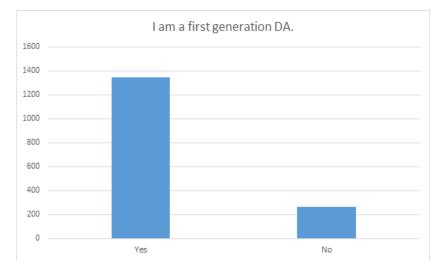


Figure 4: What languages are you fluent in? French and English results combined.

Figure 5: I am a first-generation DA. French and English results combined.



Demographic Analysis

In this section, we present an overview and analysis of the demographic data collected from the Canada-wide survey of dental assistants (described above). The survey was developed by researchers from the University of Ottawa and Queen's University in collaboration with partners from the CDAA and CDA. The survey, which was made available via an online link, collected responses in both official languages from March 5th to March 25th, 2019. The survey received a total of 1627 responses and had an average completion rate of 96%. Below we summarize and analyze the demographic data. We pay special attention to the limitations of the survey data while also highlighting those areas of critical importance to the objectives of this project, which is to better understand the state of the Canadian dental assisting workforce.

Gender. The vast majority of survey respondents identified as women (n = 99.4%), which is consistent with demographic data collected by the Canadian Institute for Health Information on the gender make-up of the profession (CIHI, 2017). The gender make-up of dental assisting has important implications on how dental assisting work is valued and experienced. For example, in Canada in 2017, for every dollar a man earned, a woman earned 88.5 cents on the dollar as measured in hourly wages for full-time workers. This gap further widens for women of colour, Indigenous women, women with disabilities, and immigrant women and when compared to annual earnings (Employment and Social Development Canada, 2018). The gender wage gap is a complex issue that encompasses the undervaluation of work largely performed by women, which also contributes to system barriers for women at work, including:

- over-representation of women in part-time work;
- labour market segmentation of women in low paying sectors;
- women's lack of representation in senior positions;
- bias and discrimination in the workplace; and

women's greater share of unpaid work (Employment and Social Development Canada, 2018).

The factors, realities, and experiences of employment as a DA in Canada are situated within the above-mentioned systemic barriers to women at work. The overwhelming representation of women in dental assisting has important implications for understanding the current state of dental assisting in Canada, namely, how current barriers to employment, retention, and recruitment of DAs are gendered issues.

Age. The recent Survey participants did not represent one age group. Indeed, respondents ranged in age from 20 to 65 years old. The largest age group was 25 to 34 years old, which accounted for 29% of participants. The smallest age group was 60 years and older, which only accounted for 5.5% of participants.

Practice setting. The researchers as well as partners from the CDAA and CDA made a concerted effort to recruit participants from every Canadian province and territory as well as community setting (i.e., urban, rural, and remote). In particular, partners from the CDAA conducted targeted outreach to practicing dental assistants in the territories and worked with provincial member organizations to share the online survey in provinces with rural and remote communities. The survey had good reach across all 10 provinces; the highest number of participants came from Alberta, Saskatchewan, Manitoba, and Nova Scotia. The survey only received two participants from the territories (both in the Northwest Territories). Despite the limited number of responses from the territories, a considerable number of participants described their community practice setting as rural or remote (n=39% and 4.2%, respectively). Overall, the survey participants represented a healthy geographical cross-section of the profession across Canada.

Language. The survey tool was developed in English and translated by the CDAA for dissemination in both official languages. The survey platform used to collect responses does

not offer concurrent surveys in multiple languages, which necessitated two different links for the online survey (i.e., a French survey link option and an English survey link option). The researchers have worked to manually amalgamate responses from both surveys in the demographic and education topic areas; in general, responses from the French and English surveys were similar. Survey participants predominantly identified English as their first language (n=81%). Dental assistants also identified several other first languages, including: French (n=13%), Albanian, American Sign Language, Arabic, Bengali, Cantonese, Croatian, Czech, Dari, Dutch, Farsi, Filipino, German, Gujarati, Hebrew, Hindi, Hungarian, Italian, Mandarin, Polish, Portuguese, Punjabi, Russian, Serbian, Spanish, Tagalog, Ukrainian, Urdu, and Vietnamese. The vast diversity of language proficiency reported by dental assistants points to the diversity and skillset of the workforce.

First-generation dental assistants. Participants were asked if they were first-generation dental assistants; that is, no one in a previous generation had dental assisting as an occupation. Because it is common for professions to be passed down in a family, the researchers wanted to know how many DAs were entering the profession with an immediate relation to dental assisting and whether or not this was a significant characteristic of the current workforce. The majority of participants reported that they were first-generation DAs (n=68%), although one third (n=32%) identified a direct family member as also having this profession.

Summary and limitations. Overall, the survey received a good response rate (n=1627), which exceeded initial participation goals for the project. The survey represented a wide range of DA experiences, with participants from every province, rural and remote communities, and diverse language backgrounds. The majority of participants identified as women, English speaking, and as first-generation DAs. At the same time, however, the survey was limited in its ability to represent DAs working in the territories. Future iterations of this research should seek to collect self-reported data on identity markers not explored in this

project, with the objective of developing an intersectional analysis of the factors, realities, and experiences of employment as a DA in Canada.

Educational Context

In this second section of the survey, participants were asked questions related to their educational background. The objectives of this section are to understand DAs' perceptions of preparedness for employment in the field, levels of certification and accreditation, and to contextualize DA's broader educational background before and after they enter the labour market. There were three questions and three Likert scale statements in the education section of the survey, including:

- What is your highest level of education?
- Where did you go to school to become a DA?
- Did you go to an accredited or non-accredited DA training program?
- Are you a National Dental Assisting Examination Board certified or non-certified DA?
- My DA education adequately prepared me for clinical practice.
- The availability and selection of DA educational programs was a factor in choosing dental assisting as a career.
- I was aware of dental assisting as a career option in high school through vocational counselling or other means.

In the next section, we present data tables and figures on the education context results. Some questions are not presented as data tables or figures. Specifically, we do not present data on participants' highest level of education and which school they attended for DA training. The vast majority of DAs indicated that a college diploma was their highest level of education, a factor that did not play a significant role in the analysis of the factors, realities, and experiences of the DA workforce. Additionally, we do not present data tables or figures on which school a participant attended because in some regions where participation was low, it may be possible to identify a participant by the school or program attended. Additionally, the DA's school of attendance did not contribute to analyzing the experience of dental assisting workforce. Furthermore, the DA's training program was not used to determine or analyze the quality or perception of schooling; this was not a primary research question in the project although it could inform the basis of future work in the area.

Education Results

Figure 6: Did you go to an accredited or non-accredited DA training program. French and English results combined.

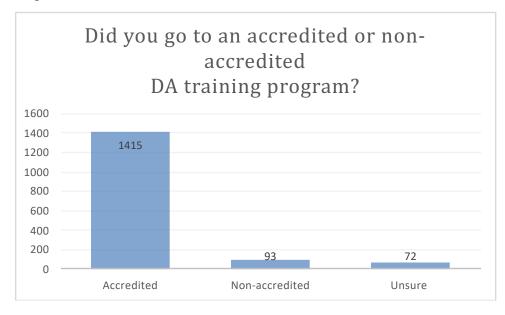
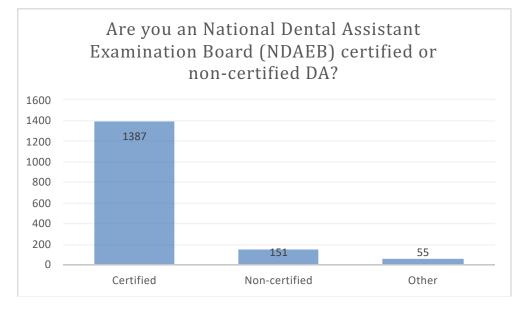


Figure 7: Are you a National Dental Assistant Examination Board certified or non-certified

DA? French an English results combined.



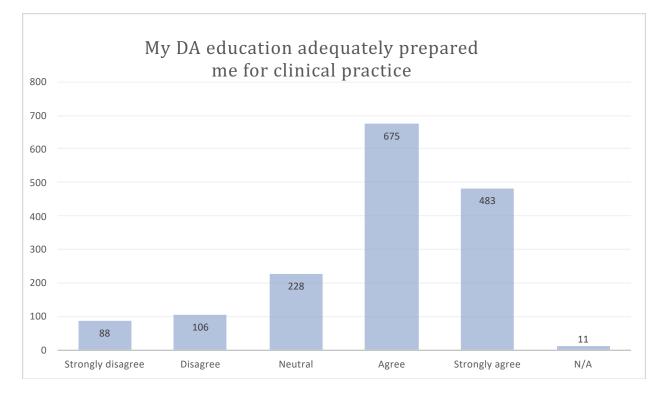


Figure 8: My DA education adequately prepared me for clinical practice. French and English results combined.

Figure 9: The availability and selection of DA educational programs was a factor in choosing dental assisting as a career. French and English results combined.

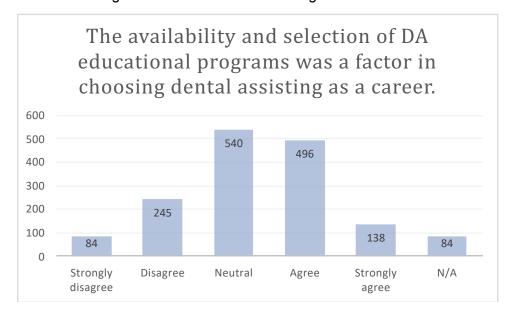
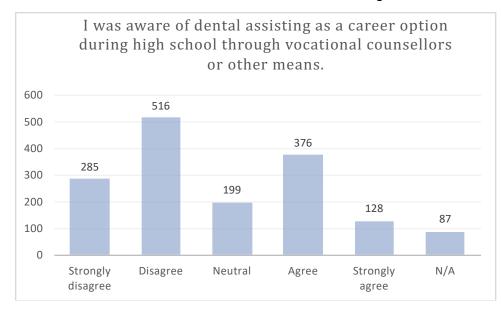


Figure 10: I was aware of dental assisting as a career option during high school through



vocational counsellors or other means. French and English results.

Education Analysis

In this section we summarize and analyze survey data collected on Canadian DA's education, training, certification, and accreditation. It should be noted, however, that because healthcare is a provincially regulated and legislated jurisdiction, the education, training, accreditation, and certification requirements for DAs varies and depends on province or territory of practice. With the exception of Ontario and Quebec and the territories, dental assisting is regulated in every province and each province has its own governing body. The registration and licensure of dental assistants in Canada rests with the provincial regulator who is a member of the Canadian Dental Assisting Regulatory Authorities (CDARA), often referred to as a "regulatory college", "board", or "council" (CDAA, 2019). Most Canadian dental assisting regulatory authorities require initial dental assistant registrants to hold the NDAEB certificate to become licensed in their jurisdiction of practice (NDAEB, 2019). Though, it should be noted, the NDAEB certificate is not the only requirement to practice as a DA; requirements may change depending on jurisdiction of practice and all Canadian jurisdictions license non-accredited graduates.

The objective of this section is to assess and analyze DA's perceptions of preparedness for work as a DA and to identify any possible gaps in the educational pathway to employment as a DA.

Accreditation and certification. The vast majority of survey participants reported that they attended an accredited DA training program (n= 89.6%) and were certified dental assistants (n=87%). This finding is not surprising because most, though not all, jurisdictions of practice require DAs to attend an accredited training program in advance of obtaining certification from the NDAEB.

Perceptions of preparedness for practice. Overall, dental assistants felt well prepared for clinical practice as a DA by the educational programs they attended. Indeed, more than 72% of survey participants either "strongly agreed" (n= 30%) or "agreed" (n= 42.4%) with the statement: "My DA education adequately prepared me for clinical practice as a DA" (see Table 7 and Figure 8). This finding indicates that DAs feel well prepared for clinical practice and that changes to educational requirements are not a particular area of concern for DAs as they transition to the workforce.

Availability of dental assisting programs. When asked if they agreed with the statement, "The availability and selection of DA educational programs was a factor in choosing dental assisting as a career," participant sentiment was varied: 35% of participants replied "neutral," 40% of participants replied "agreed," or "strongly agreed," and 20.7% replied that they either "disagreed," or "strongly disagreed" (see Table 8 and Figure 9). Though a sizable minority reported that the availability and selection was a factor in choosing dental assisting as a career (n= 40%), it is unclear from this data whether or not DAs perceive there are an adequate number and geographical distribution of DA training programs or if availability of programs was simply not an influential factor in their decision to pursue dental assisting as a career. Future research should include an open-ended question on the impact of availability and selection of dental assisting programs on dental assistants' decision-making process. Unfortunately, the question in the present survey did not achieve the level of granularity need to appropriately assess DA perceptions of availability, selection, and geographical distribution of training programs.

Awareness of dental assisting as a professional pathway. Overall, DAs were not aware of dental assisting as a career option during high school through vocational counsellors or other means (n=53%). When participants who responded "neutral" to the statement, "I was aware of dental assisting as a career option during high school through vocational counselling or other means," the number of participants who were not aware of dental assisting as a career

increased from 53% to 66%. Indeed, only 34% of participants responded that they either "agreed" or "strongly agreed" with the statement, "I was aware of dental assisting as a career option during high school through vocational counselling or other means." This survey finding indicates there may be opportunities for DA recruiting at the secondary level; a time during the educational trajectory when students are typically planning their career pathways.

Summary and limitations. DAs described positive educational experiences. The majority of participants reported that they felt well-prepared by their DA training program for clinical practice (n=72.4%) The influence of the availability and selection of DA training programs on a decision to pursue dental assisting as a career is unclear. The data indicates that some participants felt that the availability and selection impacted their career choice (n=40%); however, it is not clear in what way this influences a decision to pursue a dental assisting career. It is also unclear if the impact of the availability and selection of training programs was positive or negative; that is, the question wording did not explicitly distinguish between a positive or negative experience. In future iterations of this research, a survey question on the availability and selection of DA training programs should be included as an open-ended question rather than as a Likert scale. Finally, participants overwhelmingly reported that they were unaware that DA was a career option during high school (n=66%). The gap in awareness and knowledge about dental assisting programs at the high school level indicates an opportunity for future DA recruitment.

Work Context

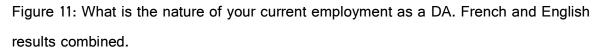
In the final section of the survey, participants were asked questions related to their work context. The objectives of this section are to better understand the experiences and realities of day-to-day work as a DA in Canada as well as the barriers and facilitators to employment in the sector. There were a total of 10 multiple choice questions, 12 Likert scale statements, 2 check-box questions, and 7 open-ended questions, including:

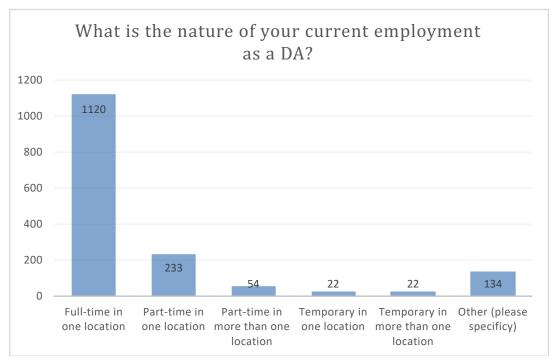
- What is the nature of your current employment as a DA?
- How long have you been working as a dental assistant?
- How long did it take you to find employment as a dental assistant?
- What is your primary practice setting?
- How did you find your current dental assisting position?
- Are you aware of any DA openings in your current practice?
- Are you considering leaving your current practice? If so, why?
- Do you supplement your DA income with work outside of the profession?
- If yes, in which sector do you supplement your work as a DA?
- Are you aware of recruitment efforts for DAs in your region?
- I would recommend a career in dental assisting to friends/family.
- It was easy to find work as a DA in my preferred location.
- There are a lot of job opportunities for DAs in my preferred location.
- I am satisfied in my current position as a DA.
- I would be satisfied if I had more hours/week.
- I am satisfied with my work as a DA.
- I am satisfied with my current working environment.
- I am fairly compensated for my contribution to my oral health team.
- I work in a healthy workplace environment.
- I have a positive working relationship with the dentist(s) where I am employed.
- I have a positive working relationship with my colleagues.

- I plan to remain a DA until a retire.
- I receive the following benefits (check all that apply).
- I have experienced the following in my work as a DA (check all the apply).
- Why did you become a dental assistant?
- What are the most valuable benefits you receive from your employer?
- What benefits would you like to receive?
- What are the positive aspects of our DA career?
- What are the negative aspects of your DA career?
- Do you plan on being a DA until you retire? If not, why?
- Do you consider dental assisting a stepping stone to another career such as dental hygiene or other type of career in the assisting or health care field?

In the next section, we present data tables and figures on survey questions related to dental assisting work context. We do not present data tables and figures and questions for every question on the survey because some questions did not render analytically significant data or were captured elsewhere in the survey by similar questions. For example, we do not present data on which sectors DAs are working to supplement their income because this does not add significant value to the objectives of this project, but rather focussed on the data that reflects the number of DAs supplementing their income. We were unable to present data on how long DAs had been working in the profession and how long it took them to find employment because these questions were presented as open-ended questions, rather than as multiple-choice questions with date ranges, which resulted in an unreliable dataset. We present a thematic analysis of the open-ended questions and present the themes that emerged for each question.

Work Context Results





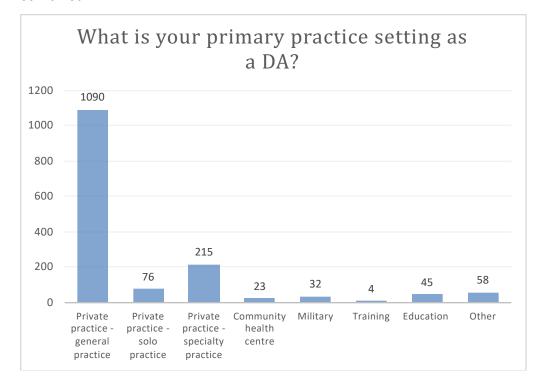


Figure 12: What is your primary practice setting as a DA? French and English results combined.

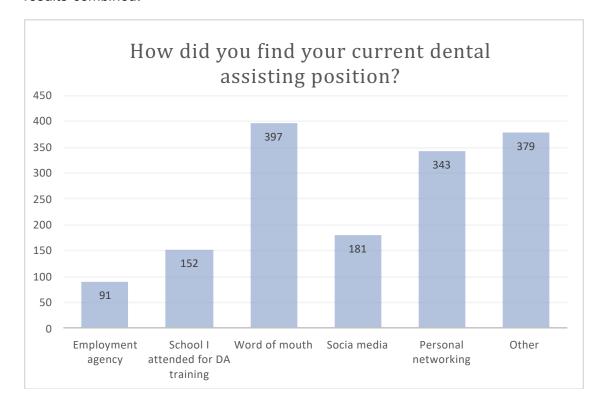


Figure 13: How did you find your current dental assisting position? French and English results combined.

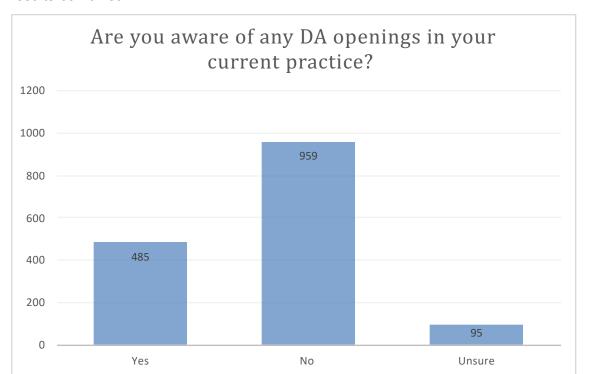


Figure 14: Are you aware of any DA openings in your current practice? French and English results combined.

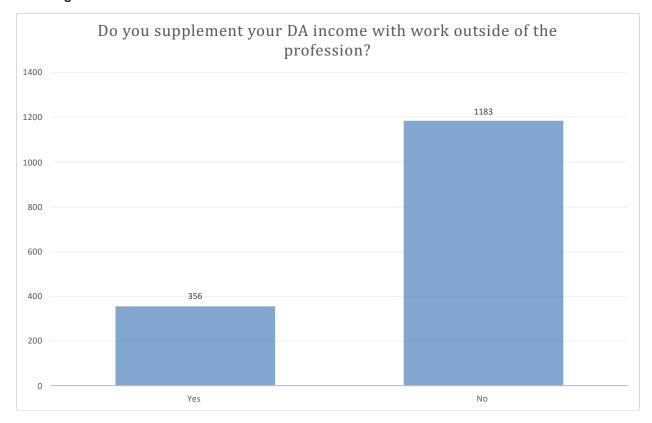


Figure 15: Do you supplement your DA income with work outside of the profession? French and English results combined.

Figure 16: Are you aware of recruitment efforts for DAs in your region? French and English results combined.

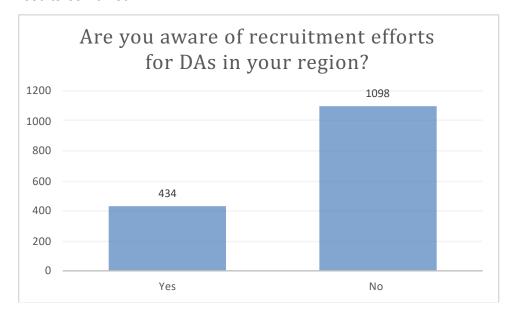


Figure 17: I would recommend a career in dental assisting to my friends/family. French and English results combined.

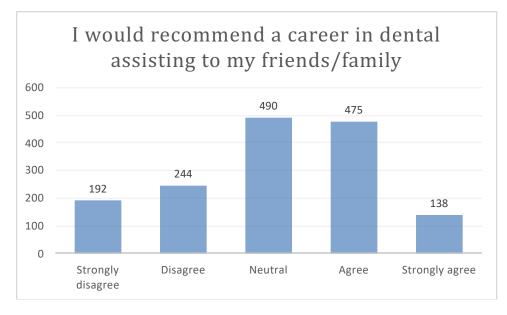


Figure 18: It was easy to find work as a DA in my preferred location. French and English results combined.

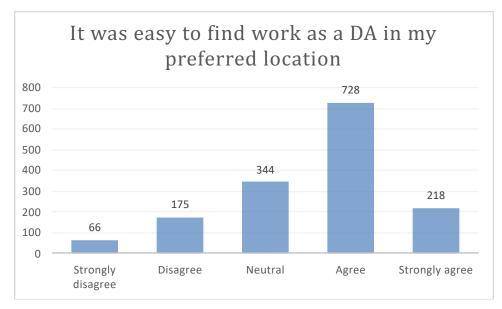


Figure 19: There are a lot of job opportunities for DAs in my preferred location. French and English results combined.

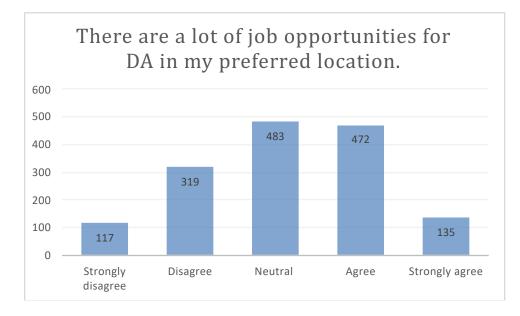
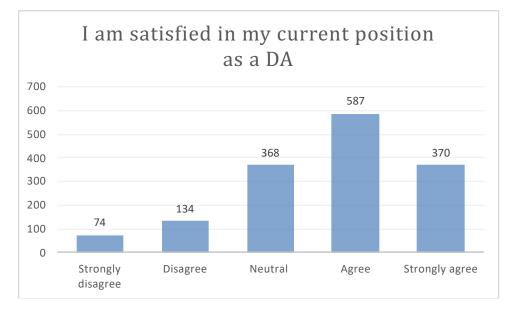


Figure 20: I am satisfied in my current position as a DA. French and English results combined.



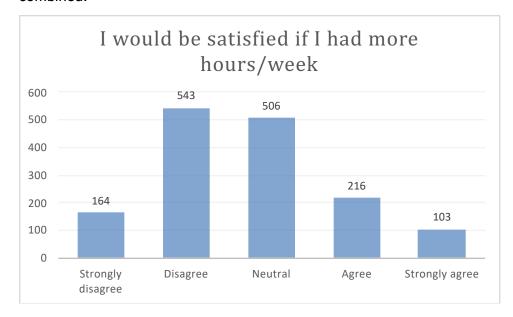
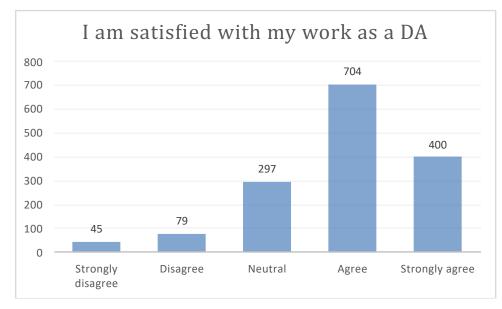
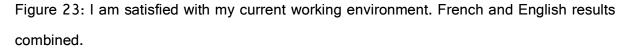
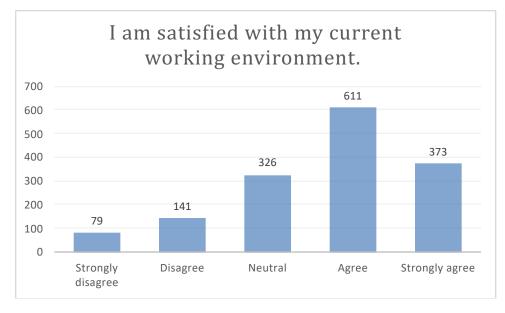


Figure 21: I would be satisfied if I had more hours/week. French and English results combined.

Figure 22: I am satisfied with my work as a DA. French and English results combined.







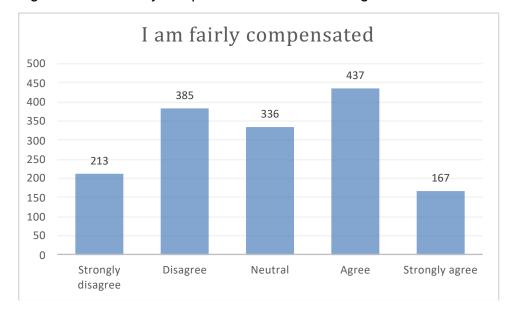
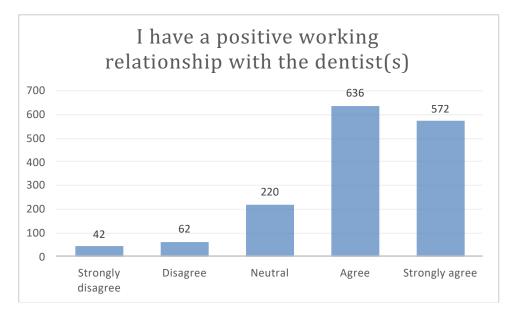


Figure 24: I am fairly compensated. French and English results combined.



Figure 25: I work in a healthy workplace environment. French and English results combined.

Figure 26: I have a positive working relationship with the dentist(s) where I work. French and



English results combined.

Figure 27: I have a positive working relationship with my colleagues. French and English results combined.

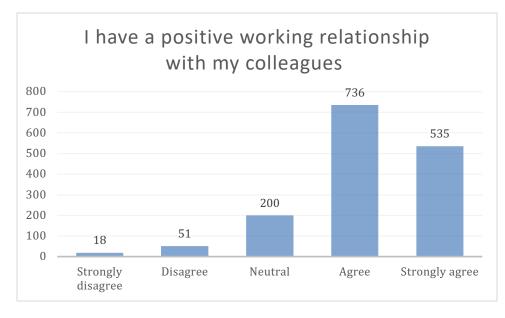
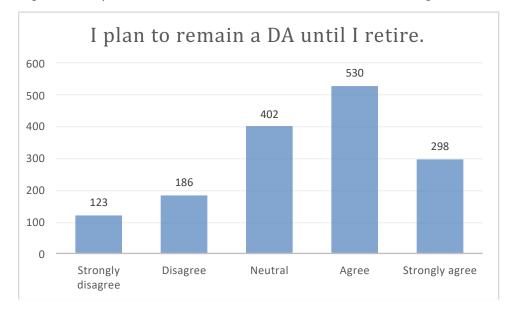


Figure 28: I plan to remain a DA until I retire. French and English results combined.



French and English combined	
I receive the following benefits from my employer. Please check all that ap	ply.
	Responses
Health insurance benefits (e.g., disability & dental)	540
Paid professional fees (e.g., license and professional memberships)	400
Uniform/footwear/laundry allowance	813
Holiday bonus	536
Free or discounted dental services	1061
Workers compensation benefits	219
Cost of living salary increases	231
Paid sick leave	405
Additional paid vacation days	278
Paid parking	219
Productivity and/or merit bonus	109
Pension or RSP contributions	141
Vaccinations/testing	95
Individual health spending account	159
Additional training	488
Drug insurance (e.g., prescription medications)	425
Optical	330
Physical/occupational therapy	334
Chiropractic	364
Massage therapy	378
Home care	35
Income replacement	37
Psychiatry and/or mental health care	167
Additional top up for maternity or extended leave	39
Total	7803

Table 3: I receive the following benefits (check all that apply).

French and English combined	
I have experienced the following in my work as a DA. Please check all that apply.	
	Response
Unacceptable patient behaviour	916
Criticism in front of patients	649
Workplace bullying	648
Unacceptable behaviour from my boss or supervisor	630
Harassment from patients	419
Harassment in the work place	238
Unacceptable behaviour from my boss that has prevented me from doing my job	224
Violence from patients	146
Sexual advances in the work place	104
Other (please specify)	66
Violence in the work place	41
None of the above	294
Total	4375

Table: 4: I have experienced the following in my work as a DA (check all the apply)⁴.

⁴ The wording of this question suggests that DAs are reporting experiences they have had historically, not neccessarily in their current practice.

Work Context Analysis

In this section, we present a brief analysis of survey questions related to dental assisting work context. The context in which DAs perform their duties is vitally important to understand the factors, realities, and experiences of employment as a DA in Canada. In particular, it is critical to develop an in-depth analysis of DA work context as it relates to issues such as harassment and violence in the work place; experiences which had been flagged anecdotally but until recently had not been examined in terms of magnitude and scope. These experiences, among others related to work context, are explored both in this section as well as through a thematic analysis of the open-ended survey questions in the final section of this report.

Nature of employment. Anecdotally, it had been reported that working at multiple clinic locations in part-time or temporary positions was common practice in dental assisting; however, most survey participants indicated that they work full-time in one clinic location (n= 70.7%). A small number of participants reported working part-time in more than one location (n= 3.4%) or as a temporary DA in more than one location (n=1.4%). Based on the survey results, it seems the nature of DA employment in Canada appears to be largely made up of DAs who work full-time in one location. An additional cross-analysis by province of practice was not possible for the breadth and scope of this research, though future iterations could focus on the regional differences.

Practice setting. In order to understand not only how and in what capacity DAs are working, but also where they are working, survey participants were asked to identify their primary practice setting. The most DAs reported that they work in a private general practice setting (n=70.6%). A minority of survey participants indicated they work in a private specialty practice (n=13.9%). Canadian DAs are primarily working in private practices (either general or specialty), which suggests experiences of employment or employer context in the sector

are varied, which is a critical consideration when assessing DAs' access to benefits and salaries.

Finding employment and DA recruitment. When asked, "How did you find your current dental assisting position?" the majority of survey participants reported that they found their current position through unofficial or unstructured recruitment efforts. For example, survey participants indicated that they found their current DA position by word of mouth (n=25.7%), on social media(n=11.7%), or through personal networking (n=22.2%) (See Figure 13). A notable minority of survey participants also said that they found their current dental assisting position through "other" means (n = 24.6%). The majority of survey participants reported that they either "strongly agreed" or "agreed" with the statement: "it was easy to find work as a DA in my preferred location" (n=14.2%, n=47.6% respectively). Future research should explore what other channels dental assistants are using to find employment in the sector. In terms of current recruiting of DAs, the majority of survey participants were not aware of DA openings in their work place (n = 62.3%). Similarly, the majority of participants were not aware of any recruitment efforts for DAs in their regions (n = 71.7%) (see Figure 16). Though, it is also notable that 31.5% of survey participants reported that they were aware of a DA opening in their current practice and 28.3% were aware of recruitment efforts in their region; this finding implies that approximately one-third of dental practices are in need of or actively searching for a dental assistant. Moreover, when asked "Are you considering leaving your current practice?" two-thirds of participants (n= 67%) of participants responded no, while 14% responded "yes" or "maybe" (See Appendix A). It remains unclear, however, why dental practices are not filling these open positions, how long positions are remaining open, if the positions offered are full-time or part-time, if there are a lack of applicants, and what other barriers may be deterring DAs from applying to fill the reportedly open positions.

Overall, Canadian DAs are finding employment through unstructured recruitment channels (e.g., word of mouth, social media, and personal networking), do not experience difficulty

finding employment in their preferred location, and are not aware of current or ongoing recruitment efforts for DAs in their practice or region. Dental practices that are advertising openings for dental assistants should consider moving beyond traditional recruitment techniques (e.g., through job boards and schools) and move into social media and DA circles, as this seems to be where most DAs are finding their employment opportunities; this is likely because DAs are recommending certain dentists/employers within their social and professional circles as positive working environments and encouraging their colleagues to apply.

Supplementing income and salary. During the development of the national survey for DAs, there was concern that they are unfairly compensated to the extent that they must work outside of the sector for additional income. To this end, survey participants were asked, "Do you supplement your DA income with work outside of the profession?" Approximately, one-quarter (n=23.1%) of participants indicated that they supplement their work as a DA with income from outside of the profession. Because almost one-third of DAs are reporting openings in their current practice, this finding suggests that DAs are supplementing their income because of low remuneration rather than lack of available work. At the same time, however, the majority of participants said that they did not supplement their DA income with work outside of the profession (n= 76.9%). While the majority of survey participants do not supplement their DA income, this does not mean that DAs are satisfied with current remuneration, and may simply indicate that they are unable, likely due to time constraints and caring responsibilities outside of paid employment, to support additional income.

Dental assistant satisfaction with work and compensation. When developing the survey, DA satisfaction with their workplace, colleagues, employer, and remuneration was a critical area of focus, because they will influence recommendations related to the retention and recruitment of DAs. When surveyed, 62.4% of participants reported that they are satisfied with their current position as a DA (See Figure 23). A small, but notable number of

participants reported they were not satisfied with their current position as a DA (n = 13.5%). Similarly, the majority of survey participants indicated that they were satisfied with their work as a DA (n=72.4%) and with their current working environment (n = 64.3%). More specifically, 63.7% of survey participants said they worked in a healthy workplace environment, while 15.2% said they did not work in a healthy workplace environment (See Figure 25). Interestingly, almost an equal number of survey participants said they were fairly compensated (n = 39.3%) as those who said they were not fairly compensated (n = 38.8%) (See Figure 24). Because almost 40% of DAs perceive that they are not fairly compensated for their contribution to their oral health team, it is important for employers to consider fair remuneration when seeking to recruit and retain DAs.

Dental assistants' relationship with dentists and colleagues. Overwhelmingly, survey participants reported they currently have a positive working relationship with the dentist where they are employed (n = 78.8%) (See Figure 26). Survey participants also reported that they currently have positive working relationships with colleagues (n=82.5%) (See Figure 27) Although DAs report positive working relationships with both dentists and colleagues, a notable number of the DAs surveyed do not intend to remain a DA until they retire (n=20.1%), with an additional number of DAs undecided as to whether or not they remain a DA until retirement (n= 26.1%) (See Figure 28). This means that just under half of the DAs surveyed are unsure as to whether or not they will remain DAs until retirement, which has important implications for DA retention recommendations and signals serious barriers to retaining DAs for a long period of time.

Negative work context experiences as a DA. Despite describing current positive working relationships with dentists and colleagues, a significant number of DAs surveyed have had negative experiences over the course of their career as a DA. Indeed, survey participants reported that they had experienced unacceptable patient behaviour (n=61.2%), criticism in front of patients (n=43.3%), workplace bullying (n=43.3%), unacceptable behaviour from a

boss or supervisor (n=42%), and harassment from patients (n= 28%) (See Table 4). Survey participants also reported that they had experienced unacceptable behaviour from a supervisor or employer that prevented them from doing their job (n= 15%), violence in the workplace (n= 16%), and sexual advances in the work place (n= 7%). The rate in which survey participants reported negative experiences when working as a DA necessitates further research on harassment within their work place. In the next section, we explore accounts of harassment and violence in the work place and highlight barriers to working as a DA in Canada.

Summary and limitations. A Canada-wide survey of DAs revealed that the majority of DAs are working full-time in one location (n = 70.7%) and in a private general practice (n = 70.6%). Approximately one-quarter of DAs are supplementing their income with work outside of the profession (n = 23.1%), which may indicate some DAs are inadequately compensated or are not working to their full employment capability; 38.8% of DA surveyed feel they are unfairly compensated for their contribution to their oral health team. The majority of DAs surveyed have positive working relationships with their colleagues and the dentists where they currently work. At the same time, however, almost half of the dental assistants surveyed were unsure if they would remain a DA until retirement (n = 46.1%). Finally, when asked if they have had negative experiences as a DA, survey participants revealed that many DAs had experienced harassment from patients, work place bullying, violence in the work place, and sexual advances in the work place over the course of their career as a DA. The survey data on work context is further complemented by a series of open-ended questions, which are explored through a thematic analysis in the next section of this report.

Work Context Thematic Analysis

In this section of the report, we present findings from a thematic analysis of eight openended questions. Please refer to the "Methodology and Analysis" section of this report for a detailed description of how thematic analysis is conducted. We present the findings for each question as a series of three to four themes that emerged from participant responses. The themes that emerged do not correspond to singular or unique experiences, but rather are representative of normative experiences as a DA in Canada more broadly. We do not provide percentage breakdowns for each theme, because this is outside the scope of thematic analysis, which is to qualitatively extract themes rather than count them. We provide an analysis of the themes that emerged for each question and discuss the possible implications for recruitment and retention practices in dental assisting.

Experiences of harassment, bullying, and violence as a DA. It is noteworthy that of all the open-ended questions, participants overwhelmingly did not skip this question. The overall response rate for this particular question was 92%, which is compared to an average of 83% for the other open-ended questions. Four distinct themes emerged when participants were asked about their negative experiences as a DA:

- 1. Harassment from dentists;
- 2. Harassment from patients;
- 3. Bullying from colleagues; and
- 4. Unfair expectations for training/skill in relation to compensation.

Theme 1: Harassment from dentists. Survey participants described experiences involving physical harassment, sexual harassment, racist and discriminatory remarks, and voyeurism. For example, a camera was discovered in the staff bathroom of a private practice. Participants also spoke about victimization by dentists through pay and other means. One participant recounted her experiences as a DA:

"Dentist not paying me, dentist yelling at me, dentist calling me at 4 am before my shift at 8 am to 'check that I was coming to work' even though I had excellent attendance, dentist found out I was pregnant and took my shifts from 5 days a week to 1 day a week."

Theme 2: Harassment from patients. Survey participants described poor patient behaviour, harassment, sexual advances, racist patients, and specifically, harassment from the parents of patients.

Theme 3: Bullying/harassment from colleagues. Survey participants described bullying and/or unfair treatment from colleagues, unprofessional office managers, and favouritism.

Theme 4: Unfair expectations from dentists. Survey participants described an overall disregard by the dentist for the DA's legal scope of practice and an unfair expectation for DAs to constantly upgrade their skills despite the lack of resources and incentives. Survey participants spoke about feeling pressured to perform duties that is outside of their scope of practice and the willingness of dentists to fire a DA who did not do so.

"The expectation that DAs must constantly be learning new skills, materials, equipment etc. without receiving pay raises which reflect upgrades in skill level. Lowest paid and least respected position in the office yet most offices can't run within out the DA"

Motivation to pursue dental assisting as a career. When asked, "Why did you become a DA?" participant responses revealed four themes:

- 1. A well-paying job;
- 2. To help people;
- 3. Work-life balance; and
- 4. To experience the dental field before an alternate career

Theme 1: A well-paying job with a relatively short and inexpensive training program. Many survey participants reported that they pursued dental assisting because the program was short, inexpensive, and financially accessible compared to similar programs (like dental hygiene). Participants felt that given the length of schooling required, the compensation for duties seemed fair. This finding is in slight contradiction to a finding earlier in the survey, which demonstrated that almost 40% of DAs feel they are not fairly compensated. This slight deviation may be an area of disconnect; DAs enter the field with the impression they will be fairly compensated and then, once in the position, feel they are going above and beyond their described duties for little pay.

> "Short program/able to meet school requirement unlike eg. Nursing"

"The DA. Program was 9 months long. At the time I did not want to spend a lot of time in school."

Theme 2: To help people. Survey participants made it clear they enjoy helping people in their DA role. A strong theme that emerged was the desire to help people and comfort nervous patients through a treatment and was a point of extreme satisfaction and pride for many of the DAs surveyed.

"I love working with the public. I'm very passionate about what I do and helping people."

"Making a difference in someone's life related to their oral health."

"I've met many interesting people, enjoy performing the intra oral skills and working with the many dentists over the years! Each day is different and I love helping people with their dental needs."

"I love interacting and educating with my patients. The best is when you can improve your patient's self-esteem and confidence by helping them get their smile back."

Theme 3: Work-life balance. Participants were motivated to pursue dental assisting because of the ability to achieve a healthy work-life balance. Nearly all DAs are women, and many responses reflected the importance of their ability to maintain a home and raise a family as a DA.

"I thought it would be a satisfying and challenging career that would work well with raising a family and having a very busy husband."

"I wanted to work in health care, without doing shift work."

Theme 4: To experience the dental field before an alternate career. Several DAs pursued dental assisting as a way to experience the dental or health field before pursuing another similar career. For example, many participants transitioned from dental assisting to dental hygiene, and some transitioned into dental school.

"I always had an interest in the dental field. It was a way to test the waters on if I truly enjoyed the field. Dental Assisting was a

wonderful experience, one that I will always treasure but it has always been a stepping stone to gain experience and eventually further my education in the field."

Benefits and compensation. Respondents provided a range of benefits that could not be distilled into themes. The employment experiences are varied, so the offered and expected benefits are also varied, which is what the social media scan also indicated, and many DAs indicated they receive no benefits at all. DAs provided an extensive list of some of the benefits and compensation they would like to receive from their employer, including:

- "RESPECT"
- RRSP
- Matched RRSP contributions
- Pension
- Short term disability benefits
- Increased salary, especially in relation to years of work
- Paid bereavement
- Overtime pay
- Medical insurance benefits for DA and family, including vision care and allied care professionals, massage etc.
- FULL dental benefits for DA and family
- Uniform allowance, including shoes
- Funding for annual license fee and association fees
- · Increase in vacation time as well as choice of vacation time
- Sick pay
- Bonuses
- Parking
- Lunch breaks

• Maternity leave

Positive aspects of a DA career. DAs indicated several positive aspects of their career, which fell into three distinct themes. It is important to note that one of the motivations to pursue a DA career (e.g., to help people) was also reported as one of the most positive aspects of the profession:

- 1. Working with patients (emotional labour);
- 2. Being part of a positive team environment (feeling valued); and
- 3. Good work-life balance.

Theme 1: Working with patients. DAs expressed positive experiences of working with patients, providing patient education, and receiving respect from patients. DAs appreciated being able to contribute to patient health, meeting new people, and making a difference in someone's oral health. For example, one participant wrote:

"I love helping people. I love the nursing aspect of this career. Some are happy to be in your care and are good patients, but many are not happy to be in the office. I like to use humour to help patients be at ease and be as comfy as possible for their appointment."

Theme 2: Being part of a positive team environment (feeling valued). DAs described the most positive aspects of their career as being part of a team environment and feeling valued by colleagues and supervisors. DAs described the following positive experiences: learning new technologies, feeling supported to continue education, mentoring students, and feeling appreciated by their supervisor. For example, one participant wrote the most positive aspect of be a DA is:

"Being able to work for a boss that lets us be a part of the team and the patients notice that and respect us greatly because of that. She will refer to us as "my friend Kathy will place the fluoride on your teeth." She gives us the time to help patients that are nervous the opportunity to let us explain what we are doing and why. Team and respect."

Theme 3: Good work-life balance. Similar to themes that emerged surrounding motivations for pursuing dental assisting (i.e., work-life balance), many DAs described good work-life balance as a positive aspect of the career. For example, one participant wrote:

"There are many. But as a woman, I have always valued the fact that my career has been flexible over the years to suit my life. I worked full time out of school and when I had children, I was able to work part-time and concentrate on raising my children. Then when I wanted more hours/pay, I was able to advance my career and carry on. I also believe there are various paths you can take as a dental assistant from general, specialties, sales, health care, and education to name a few. Opportunities are endless."

The negative aspects of a DA career. Despite describing several positive aspects of a career in dental assisting, DAs also reported several negative aspects of their career:

- 1. Negative patient interactions
- 2. Stress and/or harassment from dentists (employer) and lack of respect;
- 3. Low wages and poor benefits; and
- 4. Physically demanding.

Theme 1: Negative patient interactions. Similar to findings earlier in the survey, DAs recognized negative patient interactions as a difficult aspect of their career. DAs described enduring rude patients, harassment from patients, and lack of respect from patients. DAs described negative patient interactions as emotionally draining and challenging.

"Long hours, no bathroom breaks, missed lunches. Not enough time being booked to properly serve patients. Dentists being verbally abusive. Patients complaining they hate you."

"Lack of perceived value from the patients, parents and public."

Theme 2: Stress and/or harassment from dentists (employer) and lack of respect. Again, DAs described unrealistic expectations from their (dentist) employer as a negative aspect of work as a DA. DAs commonly described their work as stressful and mentally exhausting. For example, one participant shared negative aspects of her work as a DA:

> "Dealing with Type A Dentists, which is the majority and have to put up with the abuse. When I was young in fear of losing your job, which by the way is a big part of being a dental assistant is coping. None of that nonsense would happen now because I'm older and wiser! I was just talking about this to the younger generation and I tell them not to put up with any abuse, but I still see it and hear about it – something needs to be done!"

Another DA recalls her first position as a DA and the experiences that led her to have panic attacks at work:

"My first job as a DA was horrible. I was looked down on, belittled, and loads of drama in the office I was just not happy. It left me with anxiety and questioning my career. I took a step back and worked retail for a bit and then found my new job as a DA. Going to work I would have panic attacks thinking it would be like my last job and I still get anxious sometimes, but my new job is amazing and hopefully soon I can put my previous job and emotions in the past."

Theme 3: Low wages and poor benefits. DAs surveyed do not feel fairly compensated. Participants described their feelings of powerlessness when it comes to low wages and the lack of opportunity to advance and influence compensation. DAs expressed concern over the lack of pensions and benefits. One participant described her concern over the current state of DA salaries:

> "All dental offices are small businesses and are run accordingly. Even though there is a dental association and a dental assistants association there is not a universal standard regarding salaries, benefits and work place standards relating to working overtime, working thru lunch or unpaid time off when the dentist is away from the office."

Theme 4: Physically demanding. DA work is physically demanding that often requires DAs to stand or sit for long periods of time in ergonomically compromising positions. DAs referred to the physical implications of their work as one of the most negative physical aspect of the profession. DAs reported carpal tunnel, chronic neck and back pain, and sore feet.

"Sore back. Sore feet. Sore neck. Occasionally awful bosses and that's supposed to be normal. We work really hard, and do overtime, and there's not a ton of compensation for it."

"Not being able to do more intra oral procedures/work that is not allowed for DA's. Really hard on our bodies -backs and necks...Chiro and massage should be covered by employers as it is so necessary when in this field for many years."

Dental assisting career trajectory and retirement. Just under half of participants reported they plan on staying in the profession until they retire (n = 47%). This means that over half do not plan on remaining a DA until they retire, which is consistent with findings earlier in the survey. Three themes emerged from DAs who said they will not remain a DA until they retire, including:

- 1. Lack of respect from dentists;
- 2. Poor wages and benefits; and
- 3. Physically demanding.

Theme 1: Lack of respect from dentists. DAs reported a severe lack of respect from dentists. DAs feel unappreciated by dentists and are experiencing symptoms of burnout. For example, one participant wrote:

"It's not what I thought. I don't want to be put down for my entire life and satisfy someone who has mood swings day to day, dentists are miserable." **Theme 2: Poor wages and benefits.** Again, DAs raise the issue of compensation; DAs do not feel fairly compensated for the work they perform. DAs reported being "unable to live off the income" of a DA, "get ahead in life," or afford childcare.

"Sometimes you run over and miss out in lunch or breaks. I also think that I may max out on salary in my providence because I think most dentists believe that it's the type of career that is a dime a dozen"

Theme 3: Physically challenging. DA work has serious negative implications for the physical body. DAs reported that the work is "physically and mentally draining," and that they cannot afford to manage the physical side effects of working as a DA without proper para-medical benefits like physiotherapy.

Dental assisting as a stepping stone towards another career. Dental assisting, for some, is a stepping stone towards another career in the healthcare field (n= 29%). Participants agreed that dental assisting could be a stepping stone towards another career but there are several barriers and opportunities, encompassed in the themes that emerged:

- Yes, but DA qualifications do not correspond to other careers (certification and transfer barriers); and
- 2. Interprofessional collaboration would improve if other roles had to be DAs first; and
- 3. DA education and training as a stepping stone away from dentists and poor pay.

Theme 1: Yes, but qualifications do not correspond (certification and transfer barriers). DAs reported that dental assisting may be a stepping stone towards a new career but because credits are not transferable to programs like dental hygiene, there are significant financial barriers to leave dental assisting. A few quotes provide more context: "Yes, but they don't correspond, so I don't have the good enough grades for hygiene or dentist because none of the courses transfer over to those other programs"

"At first and before I did the course, yes. However, to continue on into other positions in the field, you cannot use credits from any previous education as a dental assistant can be used towards a hygiene program or towards a degree to go forth into any other profession in the field."

"Yes and no. I love dental assisting because you get a variety of everything. But when you can barely make ends meet you are forced to have to move up and do something else where you can make more."

Theme 2: Interprofessional collaboration would improve if other roles had to be DAs first.

Overwhelmingly, DAs said that they believe all oral health team members would benefit from time as a DA or formal education that includes interprofessional training alongside a DA. Indeed, there was a strong theme surrounding the need for interprofessional education among core oral care providers. A few quotes to contextualize the theme are provided:

> "Yes, for hygiene. But we desperately need DAs, which is why I don't agree with going straight from high school into dental hygiene. Also, hygienists who have been DAs are much better team members."

"Yes, I think all hygienists and therapists should be a dental assistant first. Too late for me though, but I am happy where I'm at."

"Yes, I truly do. I think dental assisting should be required prior to dental hygiene. A lot of basic understanding is lost without it."

"Yes. It should be a really legitimate career on its own, as hygiene has nothing to do with it, and dentists need assistants like they need oxygen. I've heard good dentists say that an experienced CDA should be like having a 2nd dentist in the room. We literally sit RIGHT next to expert surgeons and specialists 10 hours a day assisting, listening to everything they say.... we are HIGHLY TRAINED, regardless of what type of paper we have from school. The x-rays we are expected to take with 600 endo files and a dam in the way. The top-notch lab work and temp crowns. The delicate ortho skills. And the people skills. The grace to maneuver a patient thru an appt with a hostile jargon-loving dentist. You have to be like a couple's counselor and translate between dentists and patient. I could go on. I think everyone (DDS and hygiene) should have to be a CDA for at least a year before going into further dental training. Imagine what that would do for all 3 professions."

Theme 3: Stepping stone AWAY from dentists and poor pay. This third theme reflects earlier described findings and reinforces some respondent's negative experiences in the profession so are applying their education and training in other areas of the health workforce.

"Yes, I do, into health care to get away from the dentists."

"Yes, for some people, however I would not continue this path knowing what local dentists are like to work for."

"Yes, it could be. Mostly because of the lack of respect assistants are given."

Conclusions

This CDAA-commissioned research report summarized the factors, realities, and experiences of DA employment in Canada and contributed important information of an oral health professional that is absent in the published and grey literature.

Three topic areas were examined: demographics, educational context, and work context. The Canada-wide survey was completed by 1,627 DAs across the country and findings suggest that DAs are mostly satisfied in their current workplace environments, have healthy working relationships with colleagues and dentists where they work, and feel well-prepared by their educational training for practice. At the same time, however, these same DAs also reported experiences of harassment (from patients, colleagues, and dentists) over the course of the DA career trajectory, and feeling unfairly compensated for their contribution to the oral health care team.

It is difficult to discern whether or not a shortage of DAs exist in Canada, because measures for what qualifies as a shortage were not explored in this research. Though it is notable, that approximately 1/3 of DAs surveyed reported they were aware of a DA opening in their clinic and 14% of participants said they plan to leave their current practice (See Appendix A). Instead, this report operated under the assumption that if a shortage exists, what might be the factories, realities, and experiences of employment as a dental assistant in Canada contributing to that shortage. The data in this report suggests that poor remuneration and experiences of harassment are serious barriers to retention and recruitment.

Indeed, while DAs report that they are satisfied in their current workplace, the extent to which DAs have experienced harassment, violence, and bullying in the workplace at some point in their career is concerning, and may speak to the long-term retention of DAs. DAs will leave the clinic where they experience mistreatment and either find a healthy workplace or,

presumably, exit the profession. In this study, we only examined the experiences of those DAs who have stayed in the profession.

Because this was the first substantive study on the realities and experiences of employment as a dental assistant in Canada, there remains much work to be done in this area. The current data only begins to paint the picture of dental assisting in Canada and points to important avenues for further consideration. For example, the current data could be broken down to reflect provincial variations or future research could seek to survey DAs who have left the profession, rather than those who remain currently practicing. Until such research is undertaken, it is important to note that Canadian dental assistants are passionate, skilled, and love what they do; but they also experience harassment in their workplaces, feel undercompensated and express anxiety for their long-term ability to remain in a profession that is both emotionally and physically demanding.

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ODAA - Ontario Dental Assistants Association

"We definitely know there is a shortage of Dental Assistants in Ontario. So this is good news for those look for work. Remember that over 70% of Ontario Dentists require ODAA certification!"

https://www.facebook.com/yourODAA/posts/we-definitely-know-there-is-a-shortage-ofdental-assistants-in-ontario-so-this-i/1169136423097399/

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Appendices

Appendix A

Survey Question Tables

French and English combined					
How old are you?					
	Response	Percent			
20-24	173	12.3			
25-29	215	15			
30-34	198	13.9			
35-39	160	11.2			
40-44	157	11			
45-49	155	10.8			
50-54	148	10.3			
55-59	139	9.7			
60+	78	5.5			
Total	1426				

French and			
What langu			
	Response	Percent	
French	241	13.4	
English	1457	81.2	
Other	96	5.4	
Total	1794		

French and	English Con			
I am a first-generation DA				
(that is, nobody in a previous generation had this as a career)				
	Response	Percent		
Yes	1349	83.6		
No	265	16.4		
Total	1614			

French and Engl							
Did you go to an accredited or non-accredited DA training program?							
Response Percent							
Accredited	1415	89.6					
Non-accredited	93	5.9					
Unsure	72	4.6					
Total	otal 1580						

Fench and English Combined							
Are you an Na	Are you an National Dental Assistant Examination						
Board (NDAEB) certified or non-certified DA?							
	Response Percent						
Certified	1387	87 87.1					
Non-certified	151 9.5						
Other	Other 55 3.5						
Total	1593						

English and French combined						
My DA education adequately prepared me for clinical practice.						
Response Percent						
Strongly disagree	88	5.5				
Disagree	106	6.7				
Neutral	228	14.3				
Agree	675	42.4				
Strongly agree	483	30.4				
N/A	11	0.7				
Total	1591					

English and French combined							
The availability and selection of DA educational programs							
was a factor in	was a factor in choosing dental assisting as a career.						
	Response Percent						
Strongly disagree 84							
Disagree 245 15							
Neutral 540 3							
Agree 496 31							
Strongly agree 138 8							
N/A 84 5							
Total		1587					

French and English combined							
I was aware of dental assisting as a career option during							
high school through vo	cational counse	llors or other me	eans.				
		Response	Percent				
Strongly disagree		285	17.9				
Disagree		516	32.4				
Neutral		199	12.5				
Agree		376	23.6				
Strongly agree		128	8.0				
N/A		87	5.5				
Total		1591					

French and English combined						
What is the nature of your current employment as a DA?						
	Responses	Percent				
Full-time in one location	1120	70.7				
Part-time in one location	233	14.7				
Part-time in more than one location	54	3.4				
Temporary in one location	22	1.4				
Temporary in more than one location	22	1.4				
Other (please specificy)	134	8.5				
Total	1585					

French and English combined		
What is your primary practice settin	ng as a DA?	
	Total	Percent
Private practice - general practice	1090	70.6
Private practice - solo practice	76	4.9
Private practice - specialty practice	215	13.9
Community health centre	23	1.5
Military	32	2.1
Training	4	0.3
Education	45	2.9
Other	58	3.8
Total	1543	

French and	English combined						
How did yo	How did you find your current dental assisting position?						
If you hold m	nore than one positions, refer	to your prima	ry position.				
		Response	Percent				
Employme	ent agency	91	5.9				
School I at	tended for DA training	152	9.9				
Word of m	outh	397	25.7				
Socia med	lia	181	11.7				
Personal r	networking	343	22.2				
Other		379	24.6				
Total		1543					

French and English combined							
Are you aware of any DA openings in your current practice?							
Aleyouaw	are of any Dr	4 openings n	i your curre	in practice!			
	Response Percent						
Yes	485 31.5						
No	959	62.3					
Unsure	95 6.2						
Total	otal 1539						

French and English combined							
Do you supplement your DA income with work outside of the profession?							
	Response	Percent					
Yes	356	23.1					
No	1183	76.9					
Total	1539						

French and English	combined					
I would recommend a career in dental assisting to my friends/family						
	Response Percent					
Strongly disagree	192	12.5				
Disagree	244	15.9				
Neutral	490	31.8				
Agree	475	30.9				
Strongly agree	138	9.0				
Total	1539					

French and	English com	nbined			
Are you aware of recruitment efforts for DAs in your region?					
	Response	Percent			
Yes	434	28.3			
No	1098	71.7			
Total	1532				

French and English combined				
It was easy to find work as a DA in my preferred location				
	Response	Percent		
Strongly disagree	66	4.3		
Disagree	175	11.4		
Neutral	344	22.5		
Agree	728	47.6		
Strongly agree	218	14.2		
Total	1531			

French and Englis	h combined				
There are a lot of j	There are a lot of job opportunities for DA in my preferred location.				
	Response	Percent			
Strongly disagree	117	7.7			
Disagree	319	20.9			
Neutral	483	31.7			
Agree	472	30.9			
Strongly agree	135	8.8			
Total	1526				

French and English combined				
I am satisfied in my current position as a DA				
Response Percent				
Strongly disagree	74	4.8		
Disagree	134	8.7		
Neutral	368	24.0		
Agree	587	38.3		
Strongly agree	370	24.1		
Total	1533			

French and English c				
I would be satisfied if I had more hours/week				
Response Percent				
Strongly disagree	164		10.7	
Disagree	543		35.4	
Neutral	506		33.0	
Agree	216		14.1	
Strongly agree	103		6.7	
Total	1532			

French and English combined				
I am satisfied with m	iy work as a DA			
	Percent			
Strongly disagree	45		3.0	
Disagree	79		5.2	
Neutral	297		19.5	
Agree	704		46.2	
Strongly agree	400		26.2	
Total	1525			

French and English combined			
I am satisfied with my current working environment.			
	Response	Percent	
Strongly disagree	79		5.2
Disagree	141		9.2
Neutral	326	2	1.3
Agree	611	3	9.9
Strongly agree	373	2	4.4
Total	1530		

French and English combined				
I am fairly comper	I am fairly compensated (through a combination of pay and benefit			
for my contribution	on to my oral he	alth team		
	Response	Percent		
Strongly disagree	213	13.8		
Disagree	385	25.0		
Neutral	336	21.8		
Agree	437	28.4		
Strongly agree	167	10.9		
Total	1538			

French and English combined				
I work in a healthy workplace environment				
Response Percent				
Strongly disagree	77		5.0	
Disagree	156		10.2	
Neutral	325		21.2	
Agree	646		42.1	
Strongly agree	332		21.6	
Total	1536			

French and English	combined				
I have a positive w	I have a positive working relationship with the dentist(s) where I am employed				
	Response	Percent			
Strongly disagree	42	2.7			
Disagree	62	4.0			
Neutral	220	14.4			
Agree	636	41.5			
Strongly agree	572	37.3			
Total	1532				

French and English combined					
I have a positive wo	I have a positive working relationship with my colleagues				
	Response	Percent			
Strongly disagree	18	1.2			
Disagree	51	3.3			
Neutral	200	13.0			
Agree	736	47.8			
Strongly agree	535	34.7			
Total	1540				

French and English	combined	
I plan to remain a D	A until I retire.	
	Response	Percent
Strongly disagree	123	8.0
Disagree	186	12.1
Neutral	402	26.1
Agree	530	34.4
Strongly agree	298	19.4
Fotal 1539		

English responses only				
Are you considerir	Are you considering leaving your current practice?			
	Response	Percent		
Responses that	943	67.4		
contained the				
word "no"				
Responses that	174	12.4		
contained the				
word "yes"				
Responses that	22	1.6		
contained the				
word "maybe"				

Total	1399	

Literature Search Strategy

Published Literature

Search terms (AND, OR, NOT) and truncation (wildcard characters like *)	Dental assist* OR dental nurse AND Canada OR United States AND employ* OR work*
Databases and searched	<i>Databases:</i> CINAHL, Medline, ProQuest, PubMed, Scholars Portal <i>Journals:</i> Dental Teamwork (journal of the ADAA), Dental Assistant (published by the ADA), and the Journal of the Canadian Dental Assistants' Association
Part of journals searched	Key word search in entire article; title and abstract screening for relevancy
Years of search	2008-present
Language	English or French
Types of studies to be included	Qualitative studies, quantitative studies, Organizational reports, syntheses, Meta-analyses

Inclusion criteria	Study relevant to search terms, study considers dental assistants or related professionals in North America (i.e., Canada or the USA
Exclusion criteria	Study takes place outside of North America; study is not published
(why did you rule it	in English or French; study does not consider search terms;
out?	

Literature Search Strategy

Grey Literature

Search terms (AND, OR,	Dental assist* OR dental nurse AND Canada OR United	
NOT) and truncation	States AND employ* OR work*	
(wildcard characters like *)		
	"Working as a dental assistant in Canada"	
	"Dental assisting in Canada"	
	"Employment as dental assistant"	
	"Employment rate for dental assistant"	
	"Salary for dental assistant"	
	"Remuneration for dental assistant"	
	#dentalassisting #DA #dentalhealthworkforce	
	#alliedoralhealthcare #dentalassistant	
Sources searched	Twitter, vlogs, blogs, organizational websites, professional	
Sources searched		
	websites, newspaper, government sources (e.g., HRDC,	
	NOC, etc.) other misc. grey sources	
Part of journals searched	Key word search in entire article; title and abstract	
	screening for relevancy	

Years of search	2008-present
Language	English or French
Types of studies to be	Tweets, vlogs, blogs, newspaper articles, government
included	reports, professional association reports, government
	briefings, etc.
Inclusion criteria	Study relevant to search terms, study considers dental
	assistants or related professionals in North America (i.e., Canada or the USA
Exclusion criteria (why did	Study takes place outside of North America; study is not
you rule it out?	published in English or French; study does not consider
	search terms;