

Graduate Outcomes of Dental Hygiene Baccalaureate Education

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INTRODUCTION

There is a scarcity of studies on Canadian baccalaureate dental hygienists. As discussions about baccalaureate education continue on a national level, examining outcomes of earning a dental hygiene degree is paramount.

According to the Canadian Dental Hygienists Association (CDHA) Job Market and Employment Survey,¹ 19% of dental hygienists practice with a bachelor's degree as their highest credential. Only 6% have earned a bachelor's degree specifically in dental hygiene.

OBJECTIVE

To investigate the motivating reasons and graduate outcomes of the University of British Columbia (UBC) Bachelor of Dental Science in Dental Hygiene (BDSc) graduates.

METHODS

UBC dental hygiene entry-to-practice (ETP) and degree-completion (DC) graduates (n=116, 32%) from 1994 to 2016 participated in an online mixed-methods survey.

Survey questions explored:

Motivating reasons for pursuing a dental hygiene degree	Abilities gained or strengthened as a result of their degree education (DC graduates only)	Practice outcomes after earning their degree
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Chi squared tests were used to compare ETP and DC graduates and to compare these results to the CDHA survey.¹

Ethics approval was received from the UBC Behavioural Research Ethics Board (H16-02221)

RESULTS

Characteristics (N=116)	# of Participants (%) ¹
Gender	
Female	104 (90)
Male	10 (9)
Prefer not to answer	2 (2)
Program Completion Pathway	
Entry-to-Practice (ETP)	39 (34)
Degree-Completion (DC)	77 (66)
Year of Graduation with BDSc²	
1994-1999	5 (4)
2000-2005	6 (5)
2006-2010	23 (20)
2011-2016	82 (71)
Years of Practice Experience	
<1	12 (10)
1-5	39 (34)
6-10	26 (22)
11-15	13 (11)
16-20	10 (9)
21-25	5 (4)
≥26	11 (9)
Province of Practice	
Alberta	16 (14)
British Columbia	85 (73)
Manitoba	1 (1)
Ontario	8 (7)
Quebec	1 (1)
International	5 (4)

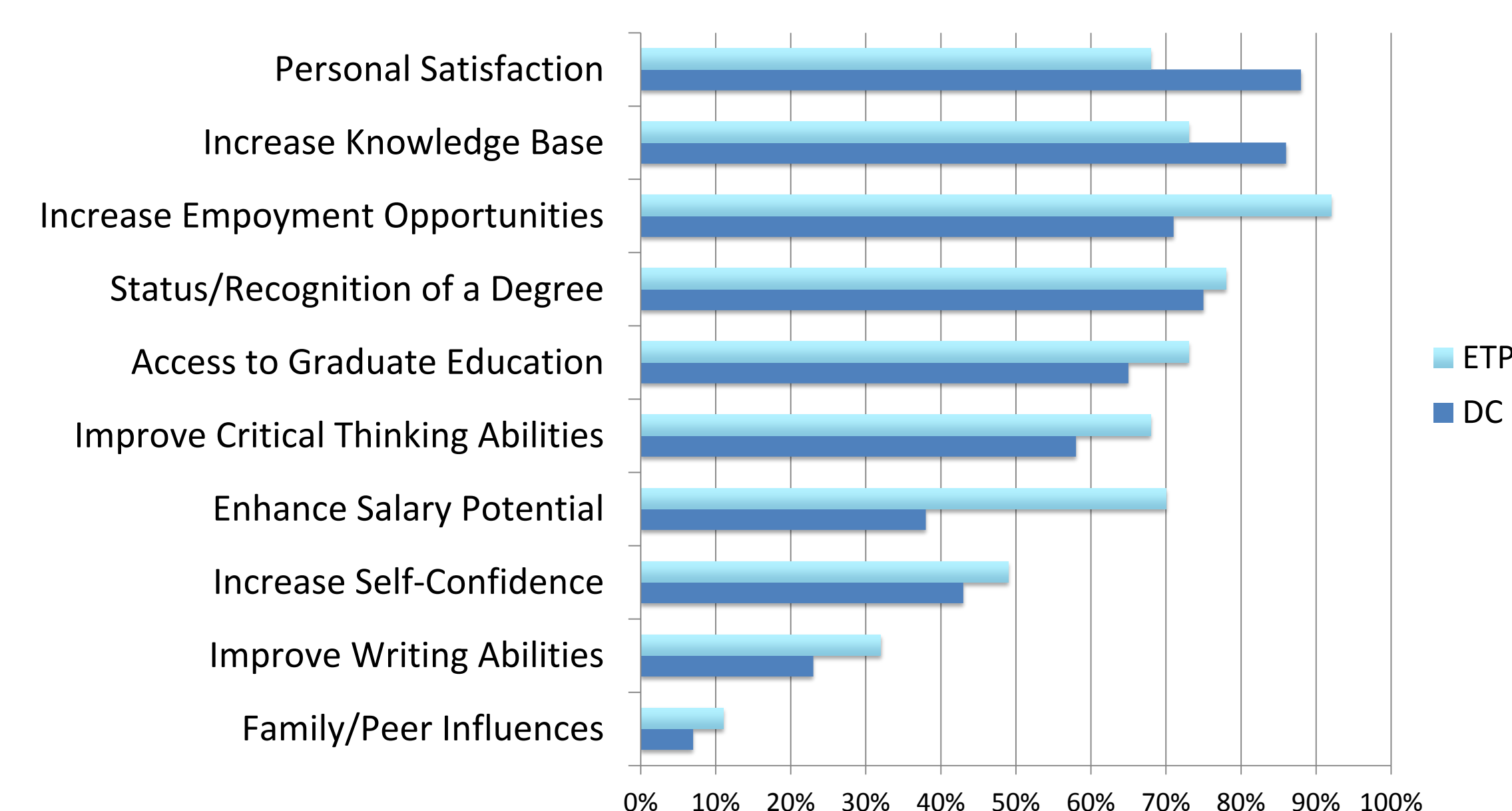
¹ Percentages may not equal 100 due to rounding error.

² The first ETP class graduated in 2011.

Participant Demographics.

MOTIVATING REASONS

Primary reasons for pursuing the BDSc degree include:



GRADUATE EDUCATION

- 30% of respondents have pursued graduate education
- A significantly greater proportion of DC respondents have earned a graduate degree compared to ETP respondents (p=0.04)

ABILITY-BASED OUTCOMES

Statement (N=76)	Strongly Agree / Agree (%)	Neutral (%)	Strongly Disagree / Disagree (%)
I have developed enhanced skills for appraising research	92	7	1
I have developed enhanced critical thinking and problem solving skills	90	9	1
I have developed enhanced skills for retrieving scientific information	88	11	1
The BDSc degree has increased my value for lifelong learning	84	13	3
I have more self-confidence	75	17	8
I feel more prepared to work independently and autonomously	64	28	8

DC respondents' opinions regarding abilities gained or strengthened as a result of earning the BDSc degree (expressed in %).

Abilities were reported as enhanced by the degree education regardless of years of practice experience or time since graduation.

IMPACT ON CARE

Differences between diploma and degree abilities are more closely linked with cognitive abilities rather than technical elements or clinical skills. Improved cognitive outcomes related to knowledge level, critical thinking, and evidence-based care.

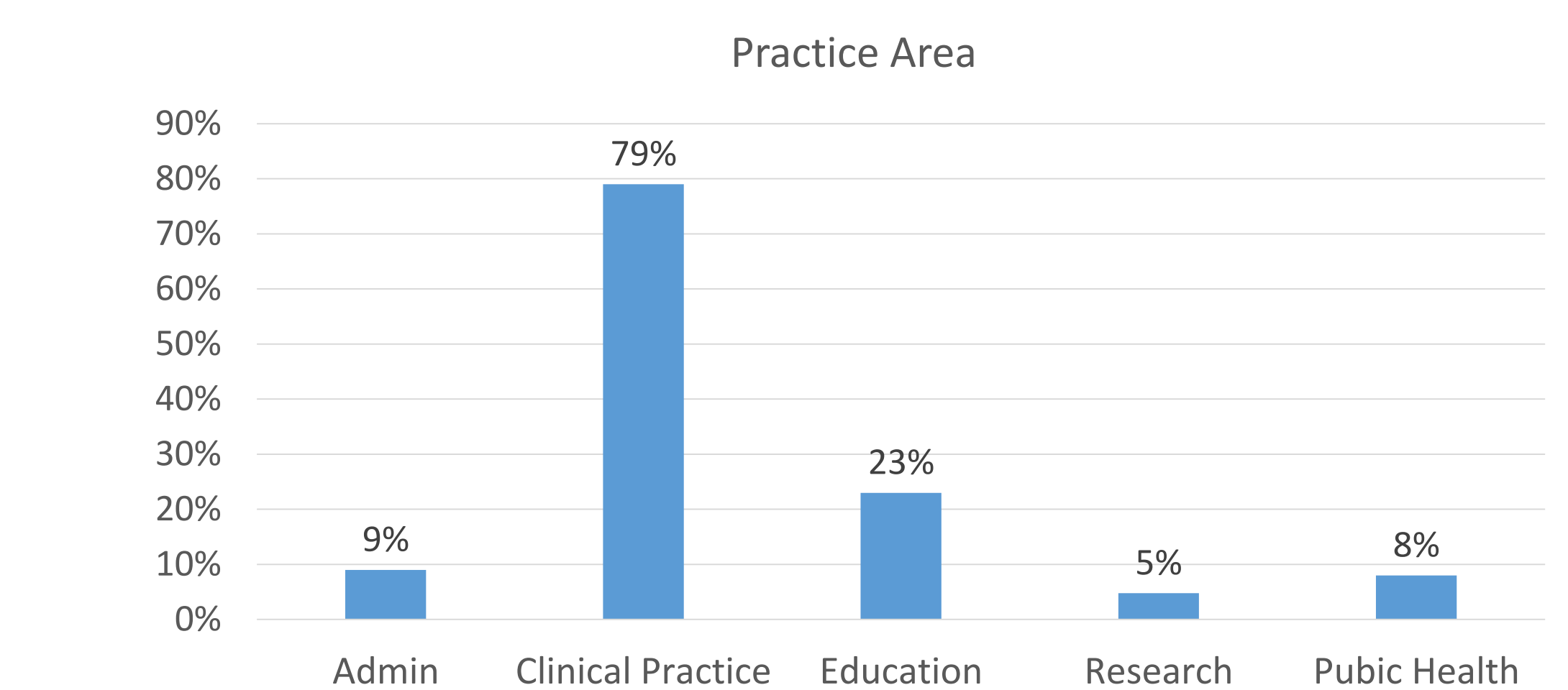
"The degree allowed me to think more critically and make my clinical decisions more evidence-based."

"I feel more confident in researching and relating information to peers and patients. I have a better understanding of my facts and knowledge when discussing or debating issues with other health care collaborators."

"The degree courses deepened and broadened my knowledge base beyond what I learned in my dental hygiene diploma, particularly courses related to policy analysis and research methods."

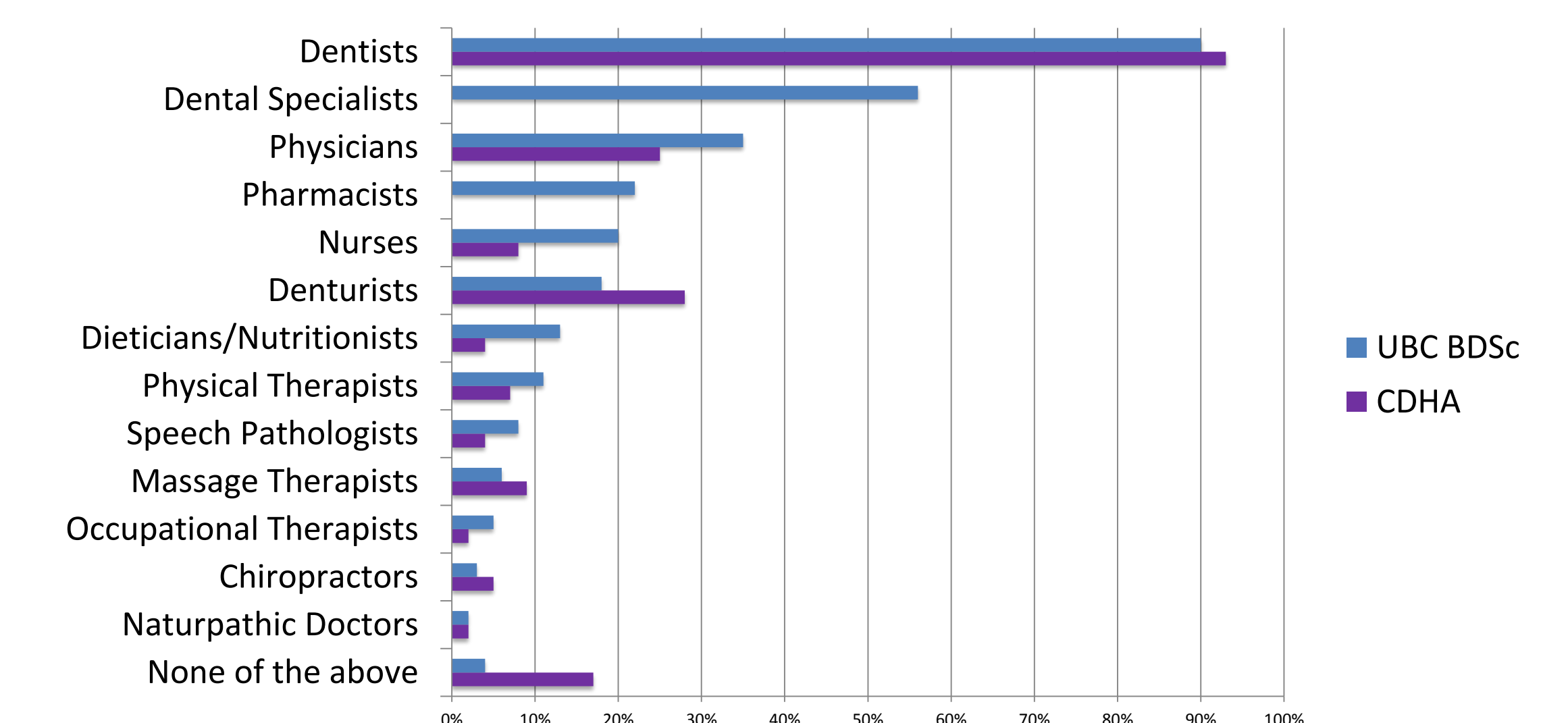
PRACTICE OUTCOMES

- 75% of DC respondents indicated that the BDSc degree expanded their career opportunities
- 45% of all respondents work outside of the clinical practice setting
- A significantly greater proportion of ETP respondents work in a clinical practice setting compared to DC respondents (88% vs. 55%, p<0.01).



Respondents' primary and secondary practice areas.

Compared to the CDHA survey,¹ a significantly greater proportion of UBC BDSc graduates practice collaboratively with non-dental health professionals* (2.7 vs. 0.8 professionals, p<0.001).



* Dental Specialists and Pharmacists were not included in the CDHA survey.¹

Compared to the CDHA survey,¹ a greater proportion of UBC BDSc graduates earn more than \$80,000 annually (40% vs. 16%, p<0.001), and receive more employment benefits (4.0 vs. 3.5, p<0.001).

CONCLUSION

The results highlight the impact of baccalaureate education on dental hygiene practice.

