

**Enhancing Post-Secondary Student Support and
Retention: Lessons Learned from the Storied Lives of
Former First Year BSc Students**

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Ethics Statement

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

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Abstract

Student retention remains one of the most widely researched areas in higher education. However, there exists a paucity of research that has examined student retention through the lens of first-year students who have been dismissed from their institution, particularly within Canadian health-related undergraduate programs.

Using a qualitative narrative inquiry, this study explored the lived experiences of 10 former first-year students in the University of British Columbia's Bachelor of Dental Science (BDS) program. Informed by Braxton and Hirschy's (2005) model of student departure for commuter students, goals of the study included investigating students' experiences as they transitioned into their first year in the program, the influencing factors that contributed to students' academic performance and subsequent dismissal in their first year of study, and the support mechanisms and resources needed for entering students. Individual interviews were conducted at two separate times with each participant to better understand their challenges and needs as they entered and transitioned through their first year of university. Interviews were audio-recorded and transcribed verbatim to facilitate the thematic coding of emergent themes. Narrative analysis involved an examination of participants' experiences related to temporality, place, and sociality accomplished through coding, member checking, and researcher memos.

Academic under-preparedness, large university class sizes, challenges connecting with faculty, and external influences were identified as factors that contributed to participants' unsuccessful academic outcome. The social environment for participants was strongly tied to classroom life. Academic learning communities successfully facilitated the establishment of close friendships and feelings of social integration. Disconnection with many faculty members resulted in participants feeling academically not integrated and contributed to lower levels of perceived institutional commitment to student welfare which negatively impacted students' ability to progress. The existing university student services departments and support resources were under-utilized.

Lessons learned from this research have resulted in a greater appreciation for the role that an institution has in supporting its students. Participants' lived experiences and suggestions have informed recommendations for policy and practice that may assist the BDSc program, the university, and other institutions of higher education in developing more robust, accessible, and visible programming to support student success.

Keywords: dental hygiene; higher education; student attrition; student persistence; student retention; student success

Dedication

To the two most important people in my life, Ada and Niyah.

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Finally, I must sincerely thank my family. My mother, father, and sister have given me their unconditional love and emotional support throughout this experience. My mother-in-law and father-in-law have dedicated an immense amount of time taking care of my daughter to provide me with the space I have needed to complete my degree. Most importantly, I want to thank my wife, Ada, for her understanding, patience, and love during those endless hours when I locked myself away in my home office. You have completed this degree with me. I very much look forward to spending more time with you and Niyah.

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List of Acronyms

ACER	Australian Council for Educational Research
BDS	Bachelor of Dental Science
CCTST	California Critical Thinking Skills Test
CDHA	Canadian Dental Hygienists Association
CQ	Candidate's Questionnaire
CRT	Critical Race Theory
EQI	Emotional Quotient Inventory
GPA	Grade Point Average
MMS	Model Minority Stereotype
NCES	National Center for Education Statistics
NDHBE	National Dental Hygiene Board Exam
NSSE	National Survey of Student Engagement
PSI	Problem Solving Inventory
SAT	Scholastic Aptitude Test
SFU	Simon Fraser University
SSP	Student Success Program
UBC	University of British Columbia
USA	United States of America
YITS	Youth in Transition Survey

Glossary

Academic Integration	The degree of congruency between a student and the academic systems in an educational institution that may be influenced by interactions with faculty, staff, and peers as well as subsequent grade performance (Tinto, 1975, 1993).
Commuter	A student who is non-residential; not residing on campus (Pascarella et al., 1983; Braxton & Hirschy, 2005).
Dropouts	Previously enrolled students who do not reenroll and complete their intended educational program (Tinto, 1993; Voigt & Hundrieser, 2008).
Goal Commitment	A student's educational and career expectations (Braxton & Hirschy, 2005; Tinto, 1975).
Institutional Commitment	A student's predisposition toward attending one institution over another (Braxton & Hirschy, 2005; Tinto, 1975).
Minority Student	Students of any race who are in the minority on campus or in society. Examples discussed within this dissertation include Asian, Black, Hispanic, and Indigenous student populations (Carter, 2006; Deil-Amen, 2011a; Quaye et al., 2009).
Narratology	The theory and study of narrative inquiry as a research methodology (Clandinin & Connelly, 2000).
Narrative Inquiry	The study of human lives to honour lived experiences through storytelling as a source of important knowledge and understanding (Clandinin, 2013; Creswell, 2014).
Non-traditional Student	Students who are older than 24 years, enrolled part-time, and/or non-residential (Bean & Metzner, 1985; Wylie, 2005).
Retention	The ability of an educational institution to retain or keep students from admission through to graduation (Seidman, 2012; Tinto, 1975).
Social Integration	The degree of congruency between a student and the social systems present in an educational institution (Braxton, 2000; Tinto, 1975). Social integration may be established through the acceptance by peer groups, formation of friendships, and participation in extra-curricular activities (Tinto, 1975).
Stop-outs	Students who begin a program of study but subsequently withdraw for a period of time after which they reenroll in their intended program to complete their diploma or degree (Hoyt & Winn, 2003; Lehmann, 2007; Voigt & Hundrieser, 2008).
Student Attrition	Students who fail to reenroll at an institution in consecutive terms (Bean & Metzner, 1985; Seidman, 2012).

Transfer-outs

Students who start their educational journeys in one institution but then leave and reenroll in another institution (Hoyt & Winn, 2003; Voigt & Hundrieser, 2008).

Chapter 1. Introduction

1.1 Articulating the Problem of Student Attrition

The problem of student dropout, also known as student attrition, in higher education is an ongoing concern for many interested parties including student affairs professionals, educational administrators, faculty members, educational researchers, and, of course, students. Retention refers to the ability of an educational institution to retain or keep students from admission through to graduation (Seidman, 2012; Tinto, 1975). Studies pertaining to student retention centre around theories and practices aimed at disrupting student attrition, defined as students who fail to reenroll at an institution in consecutive terms (Bean & Metzner, 1985; Seidman, 2012).

Student attrition can be examined through an institutional, societal, and individual lens. The student retention process begins as post-secondary programs recruit and select potential students through the identification of appropriate criteria for admission. Educational institutions expend a significant amount of time and resources identifying and recruiting potential students, but if students who enroll do not successfully complete the program, then the institution's efforts ultimately become losses (Guerrero, 2010). From an institutional perspective, student attrition is particularly important for health science and human service professional programs. Since the academic, clinical, and community curricula are sequential and cumulative, if a student does not complete part of the program at any level, it is not usually possible to replace that student. As outlined later in this chapter, there may be circumstances where student departure would be appropriate if a student is not well suited for the program or subsequent profession. Nonetheless, supporting students throughout their program of study and maintaining full enrollment are imperative for the institution (DesJardins, Ahlburg, & McCall, 1999; Guerrero, 2010). In addition, colleges and universities feel pressure to improve their retention and graduation rates since institutional growth attracts further funding from various levels of government (DesJardins et al., 1999). Improving student retention rates is significant for institutions in terms of accountability and rankings that focus on

institutional academic outcomes (DesJardins et al., 1999; Guerrero, 2010; Museus & Quaye, 2009).

Student attrition, however, is not only a problem for educational institutions. Research demonstrates that retaining students through to graduation has significant benefits not only on an institutional level but also on a societal and individual level (DesJardins et al., 1999; Guerrero, 2010; Museus & Quaye, 2009). These benefits have been explained from both economic and developmental perspectives. Equally as important, at the individual level, the experience for unsuccessful students can be emotionally and financially traumatizing (Morosanu, Handley, & O'Donovan, 2010).

From an individual monetary perspective, successfully completing higher education at any level significantly increases one's income potential; higher median annual earnings are associated with higher educational attainment (Aud, Fox, & Ramani, 2010; Pell Institute, 2011). According to an Economic Policy Institute report, college graduates on average earned 56% more than high school graduates in 2015 in the United States of America (USA) (Kroeger, Cooke, & Gould, 2016). The Economic Policy Institute report also indicated that the unemployment rate for young college graduates was 5.6 percent compared with 18 percent for young high school graduates (Kroeger, 2016). Similarly reported in the USA, adults between 25 and 64 years of age with a high school diploma earn \$24,300 annually compared to \$35,700 for those with an associate degree and \$53,200 for those with a baccalaureate degree (Crellin, Kelly, & Prince, 2012).

In Canada, adults with a college diploma or university degree earn approximately 74% more than those with a high school diploma (Statistics Canada, 2014). Statistics Canada (2012) also reported that higher levels of education are associated with higher employment rates. In Canada, 82% of the adult population aged 25 to 64 with post-secondary education was employed, compared with 55% of this age group who had not completed their secondary school education (Statistics Canada, 2012). In conjunction with their earning higher wages, post-secondary graduates' incomes also increase more quickly (DesJardins et al., 1999).

In addition to the monetary benefits for individuals, there are many monetary benefits for society. Educated societies enjoy benefits such as increased financial productivity, increased quality of life, and reduced crime rates (Museus & Quaye, 2009). Societal costs associated with higher rates of educational non-attainment include reduced economic output, reduced public revenue, decreased quality of life, and increased criminal activity (Museus & Quaye, 2009). There are increased income tax revenues generated from the higher employment rates and incomes, increased sales tax revenue, and increased financial support for social programs by having educated individuals living and working within these communities (Crellin et al., 2012). For example, due to income differences, baccalaureate degree graduates contribute approximately double that of what secondary school graduates pay in local and federal taxes in the USA (DesJardins, et al., 1999; Guerrero, 2010; Museus & Quaye, 2009).

According to the Pell Institute for the Study of Opportunity in Higher Education's report outlining a Vision on the 2020 degree attainment goal for the USA, improving post-secondary degree attainment is deemed essential to remain economically competitive globally through fostering the skills, ingenuity, and critical thinking abilities in youth who would be better positioned to stimulate the economy (Pell Institute, 2011). Reduced spending on corrections has also been identified as graduates from higher education are less likely to be incarcerated and to engage in disruptive social behaviours (Crellin et al., 2012; DesJardins et al., 1999). Higher educational attainment has also been associated with a decline in divorce rates for both men and women (United States Department of Labor, 2013). Conversely, there may also be negative correlations with increased educational attainment on society. As one example, higher education for women has been negatively associated with reproductive output leading to lower birthrates and a lower number of children entering society (Huber, Bookstein, & Fieder, 2010).

In addition to these economic benefits for individuals, institutions, and society, post-secondary education may also serve as a facilitator and catalyst for students' personal development. Innovative organizational and curricular practices have a positive impact on students' cognitive and social development (Evans, Forney, Guido, Patton, &

Renn, 2010). Chickering and Reisser (1993) have focused on the positive influences of the college environment on student development and the important role of the institution and faculty in the formation of student identity. Educational environments exert powerful influences on student growth including developing competence (intellectual, physical, and interpersonal), managing emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing an identity, developing purpose, and developing integrity (Chickering & Reisser, 1993). Collectively termed *vectors of development*, Chickering and Reisser (1993) regard these vectors as pathways for journeying toward individuation. Students' level of satisfaction with their college experience is important if this personal development is to occur (Evans et al., 2010). Therefore, supporting students' progression to graduation has important implications because students who dropout may not benefit from the college experience and concurrent personal development associated with higher education nor benefit from the potentially positive economic outcomes linked with earning an undergraduate degree.

In Canada in 2010, there were almost 1.2 million students enrolled in degree programs within Canadian institutions, 755,000 of whom were undergraduate students (AUCC, 2011). According to a historical trend report from the Pell Institute for the Study of Opportunity in Higher Education, there were approximately 17.3 million undergraduate enrolled in degree-granting higher education institutions in 2015 in the USA (Pell Institute, 2017). Despite the substantial benefits associated with the completion of higher education, of the students who enroll in Canadian institutions, 43% dropout from university and 69% dropout from college over a four-year period (Statistics Canada, 2008). Similarly, in the USA, only 59% of students successfully progress and graduate with a baccalaureate degree within a six year period (Bowman & Denson, 2014; NCES, 2014).

These alarming statistics have been consistent throughout the past few decades and in other continents. For example, retention rates over the past two decades in Australia indicate that approximately 20% to 33% of all students entering university do not complete their degree over a five to six year period (ACER, 2011; Clark & Ramsey, 1990; O'Keeffe, 2013). In 2015, the Australian Council for Educational Research

reported of all students who started a baccalaureate degree in Australia in 2005, 27% had not completed eight years later (Edwards & McMillan, 2015). As critiqued in more detail in Chapter 2, the Canadian and American graduation rates appear artificially low compared to their Australian counterparts which may be due to the publishing of reports that only consider students who complete their degree at one institution (failing to acknowledge those students who transfer to another institution to complete their degree) over the traditional four-year degree-completion time (Adelman, 2009). As will be discussed in greater depth in Section 2.5, research on Canadian students' progression has been stymied by data sets that have not followed students over the course of their post-secondary education like has been done in other countries including the USA and Australia. Despite the heightened awareness and research attention in this area, reports from the National Center for Education Statistics (NCES) demonstrate that the USA national rate of student persistence and graduation has shown negligible change over the past few decades (NCES, 2005; NCES, 2017).

Literature pertaining to post-secondary student retention is abundant. Research on student retention has focused largely on the characteristics of the students entering higher education as well as the practices of the post-secondary institutions. One such student characteristic involves student preparedness. Students who are more academically prepared are more likely to succeed in college (Cook & Leckey, 1999; Finkelstein & Thom, 2014; Holt, 2005; Thomas, 2002; Wilcox, Winn, & Fyvie-Gauld, 2005). Some argue that too many students are now attending university and that only a small proportion of the adult population is intellectually capable of earning an undergraduate degree (Guerrero, 2010). However, only 15% to 25% of student departures from college can be attributed to academic failure and subsequent institutional dismissal (Tinto, 1993). Most undergraduates who do not progress leave voluntarily, and this withdrawal decision involves a plethora of reasons pertaining to a lack of academic preparedness, incompatibility with the institution or program of study, and challenges with social integration (Barefoot, 2004; Leppel, 2005; Scott, Shah, Grebennikov, & Singh, 2008; Tinto, 1975; Tinto, 1993; Wilcox et al., 2005). Consequently, the research that distinguishes student attrition resulting from academic failure compared to voluntary withdrawal focuses heavily on students who voluntarily choose to leave.

With regard to institutional practices, throughout the evolution and critiques of various student retention models and the related empirical research in recent decades that will be discussed in Chapter 2, the theme of promoting student involvement or engagement has remained a constant. The concepts of social and academic integration and engagement underpin student learning and success in relation to persistence, achievement, and retention (Braxton & Hirschy, 2005; Kuh, 2009; Powers, 2007). It is now widely accepted that the actions of student affairs professionals and faculty to engage students, particularly within the classroom setting, are key to institutional efforts to enhance student retention (Braxton & Hirschy, 2005; Kuh, 2009; Pascarella & Terenzini, 2005; Tinto, 2006). Many of these influencing factors and determinants of student withdrawal can be and have been researched to assist post-secondary administrators and educators with identifying at-risk students and to inform institutional strategies aimed at reducing student attrition.

1.2 Further Exploring Retention – Is All Retention Good?

Despite the benefits to the individual, institution, and society of persisting through higher education, student attrition may have positive implications for the student, institution, and the profession into which the graduate would enter. A university may not wish to retain students who are not academically suited for their environment. While retaining students is an important outcome, the assumption that 100% retention rates are achievable or even desirable must be challenged (Adelman, 2009; Rummel, Acton, & Costello, 1999). Graduates who do not enjoy their academic experiences and enter the workforce may reflect poorly on the image of the institution (Rummel et al., 1999). These graduates may ultimately leave the profession which may negatively impact their future employment and quality of life. Students' levels of self-efficacy may also be severely damaged through several years of negative feedback related to their academic work; students should be able to persist in an environment and field of study to which they feel well suited and can subsequently enjoy and flourish (Cooke, Sims, & Peyrefitte, 1994; Rummel et al., 1999). In some cases, students leave higher education because they are not obtaining what they need to, are not interested in their chosen major, or do not fit in

with their peers or environment (Lehmann, 2007; Rummel et al., 1999). From a student lens, departing from school in such circumstances can be a positive occurrence.

Further to this, while attending a particular institution, some students may concurrently be exploring other institutional programs to which they may feel more suited: more interest in the field of study, closer to home for family support, or fewer financial barriers (Hoyt & Winn, 2003). This exploration may result in students dropping out from one institution and transferring to another. So while one institution deems losing such students to be a loss, from a student's perspective, this decision to drop out or transfer may place them on a path to success.

Defining and differentiating different forms of departure is important, as each of these student sub-populations may have a unique set of characteristics, experiences, and reasons for withdrawing. For example, *dropouts* may be defined as previously enrolled students who do not reenroll and complete their intended program (Tinto, 1993; Voigt & Hundrieser, 2008). *Stop-outs* may be defined as students who begin a program of study but subsequently withdraw for a period of time after which they reenroll to complete their diploma or degree (Hoyt & Winn, 2003; Lehmann, 2007; Voigt & Hundrieser, 2008). *Transfer-outs* are students who start their educational journeys in one institution but then leave and reenroll in another institution (Hoyt & Winn, 2003; Voigt & Hundrieser, 2008). Rab (2004) and Bahr (2012) note the increase in multi-institutional attendance and discontinuous enrollment in which post-secondary students may experience several episodes of attrition and re-enrolment over their educational journeys, broadly termed *swirling*. These different categories of withdrawals are important to differentiate in order to better understand the reasons why students are leaving, to support these decisions, and to implement effective retention strategies (Hoyt & Winn, 2003; Voigt & Hundrieser, 2008).

From the institutional perspective, another potential positive outcome related to student attrition relates to the practice of *gatekeeping*, particularly in health science and human service professional programs. Literature stemming from Nursing and Social Work highlight the practice of gatekeeping as a fundamental professional ethical

obligation aimed at ensuring that graduates are suitable to practice by screening out unqualified students who may cause harm to the public (Elpers & FitzGerald, 2013; Fontana, 2009; Gazza, 2009; Lafrance, Gray, & Herbert, 2004; Sowbel, 2012). Gatekeeping may occur during the admissions process by refusing entry into the program or through interrupting a student's progression once enrolled if minimum standards are not met (Sowbel, 2012). Professional programs and faculty members have the responsibility of guarding the gates of the profession, ensuring that students are fit to practice as often measured by clinical competence, ethical standards, and professional conduct (Fontana, 2009; Lafrance et al., 2004). The professional community and associated regulatory bodies depend on educational institutions to ensure that individuals graduating with a professional diploma or degree will practice competently and ethically (Elpers & FitzGerald, 2013). For students who demonstrate a lack of suitability as evidenced by continued unsafe or unethical practices, then dismissal from a program is a beneficial outcome for the student, program, profession, and public. Therefore, student attrition may be a favourable outcome for institutions where students depart higher education for reasons pertaining to lack of suitability or fit to a program or a profession.

1.3 Placing the Problem in Context

In Canada, the largest post-secondary dropout rate occurs in the first year of study (15% from College, 7% from University) and another 12% of first-year students from college and university transfer out after they learn early that they are not enrolled in a program or institution that is right for them and switch to another (Childs, Finnie, & Martinello, 2016). The cumulative leaving rates in Canada (drop-outs and transfer-outs) after the first year of study are thus 27% from college and 19% from university (Childs et al., 2016).

The Bachelor of Dental Science (BDS) four-year program in the Faculty of Dentistry at the University of British Columbia (UBC) has experienced an annual attrition rate of between 8% and 24% (average 17%) after the first year of study since the program's inception in 2007 (see Table 1). Almost all of these student departures are a result of involuntary withdrawal. That is, the institution dismissed these students due to

academic failure. Attempts to address this departure problem from the administration have involved increasing the first-year cohort size in 2011 to accommodate the anticipated non-progression of entering students. Increasing enrollment may benefit the institution but this strategy does not help support first year students.

From the institutional and student perspectives, the BDS_c program's rate of student attrition after the first year is a significant concern, particularly when compared to UBC's overall undergraduate student retention rate between first and second years. This comparison is relevant since first-year BDS_c students are primarily enrolled in general studies courses (23 credits of the 32 credits) outside of the Faculty of Dentistry such as Biology, Chemistry, Psychology, and English taken with students in the much larger Faculties of Arts and Science. Therefore, their academic schedule, class sizes and formats, and professors are similar to first-year students across other faculties at the university.

According to UBC's *2015 Annual Report on Enrolment: Vancouver Campus*, the university's average undergraduate retention rates after the first year of study are 93% for domestic students and 88% for international students across all disciplines. These numbers, however, include students who may have transferred programs or faculties within the university. These rates have been steadily improving over the past several years. This report defines retention as "the percentage of first time, first year, full-time, degree-seeking students who register in the following year" (UBC, 2015, p.41). However, UBC's *Student Voice Survey* in 2010 demonstrated that only 55% of first year students feel that they have been successful adjusting to the academic demands of their new learning environment (UBC, 2010). In the same survey, when asked to rate their overall transition experience to UBC from their previous school, only 27% of first year students reported this transition to be successful. For the past decade, UBC's graduation rate over a six-year period has been approximately 77% (UBC, 2015).

The students who do successfully proceed to the second year of study in the BDS_c program ultimately graduate. However, within the first year of this program, many students tend to struggle with their social and academic transition from secondary school

to the university culture of learning. It is important to acknowledge that this transitional challenge and subsequent attrition rate may not be a student-centred problem but rather could be a reflection of insufficient institutional resources or efforts to make existing resources available or visible to support entering students.

Table 1

Student Attrition Rate in the BDS Sc Program at UBC Since Inception

<u>Academic Year</u>	<u>Students Enrolled in Year 1</u>	<u>Students Progressed to Year 2</u>	<u>Number of Non-Progressing Students</u>	<u>Attrition Rate</u>
2007-08	22	17	5	23%
2008-09	23	20	3	13%
2009-10	25	23	2	8%
2010-11	24	19	5	21%
2011-12	27	21	6	22%
2012-13	29	23	6	21%
2013-14	29	22	7	24%
2014-15	29	26	3	10%
2015-16	29	26	3	10%
TOTAL	237	197	40	Average: 17%

From the student perspective, the transition to higher education is accompanied with a number of challenges not only academically but also socially and culturally (Braxton & Hirschy, 2005). These influences will be examined in depth in Chapter 2. According to the Faculty of Dentistry’s admissions records, the majority of students in the BDS Sc program arrive to the university immediately after graduating from secondary school. While attending first year at UBC, most BDS Sc students live at home with their

parents. In addition to being enrolled in a new program, some students often arrive at a new institution after leaving home, family, and friends for the first time to come to a foreign environment and lifestyle to which they need to adapt quickly while concurrently remaining focused on their academic studies (Morosanu et al., 2010). Students' transition can thus serve as a significant source of stress which, if inadequately addressed, is likely to negatively affect their psychological well-being and academic performance (Morosanu et al., 2010; Wilcox et al., 2005). Therefore, how institutions support students during the transition into and persistence through their higher education may be central to students' academic success.

1.4 Introducing the Researcher

This section provides an introduction to my lens through which I approach this research. A more extensive analysis of my interpretive framework will be discussed in the Methods chapter in which I position myself and my own story within the context of the methodology used to explore the research questions. As an educator and administrator in the BSc program over the past seven years, I have worked from a constructivist paradigm and subjectivist epistemology. I care about facilitating my students' academic success and personal journeys while appreciating the diverse contexts that each brings to UBC. I desire to more deeply understand entering students' experiences and challenges as they transition to UBC through listening to and engaging with former students' stories about their lived experiences in first year.

My own journey involved entering UBC as an undergraduate student in the Faculty of Science directly from secondary school. I did not directly enter a health program nor did I complete a BSc degree; however, similar to the former students in this study, I experienced a culture shock transitioning from a small high school to entering a large research-intensive university with classes comprising hundreds of students, professors who may not know you personally, and expectations to learn more independently. This experience was intimidating and stressful for me beginning my first year at UBC. As I will explain in greater depth in Section 3.2, the value of education was reinforced throughout my childhood, and the subsequent pressure I felt to succeed in

university was high. I struggled academically in my first semester at UBC. I did not always know how to ask for help or from whom. I have had similar experiences to many of my own first year students. As a result, I sympathize with their challenging journey and am motivated to help support their success.

Through developing a better understanding from students' perspectives of what transpired within their first year of study that led to their academic dismissal, I intend to develop and implement more effective student support mechanisms that will hopefully facilitate the academic success of future entering students. As the Year 1 Curriculum Coordinator and recently appointed Director of the BDS_c program, I am in a unique position to be able to institute meaningful change. As an educational leader, I feel a strong sense of responsibility to advocate for the student body. This research will allow for the voices and stories stemming from former first year students to inform positive institutional change to enhance the student experience and more effectively facilitate their academic success.

1.5 Research Purpose and Design: Supporting Student Success

The BDS_c program attrition rate is a problem for the institution and for its students since the extent to which students are unsuccessful may indicate that the institution and faculty are inadequately supporting entering students or are in need of refining their selection process. Therefore, this study explores the lived experiences of former first-year students in the BDS_c program to better appreciate their challenges and needs as they enter university. These shared experiences may then inform the development of appropriate student support mechanisms for entering students. Braxton and Hirschy's (2005) model of student departure for commuter students informs this research study. Drawing on their model, I recognize the interplay between sociological, psychological, and organizational factors that may influence student persistence in higher education.

Using this theoretical framework, this research adopts a qualitative narrative approach to explore the following research question: What are the lived experiences of first year students who did not progress to their second year of study in the BDS_c

program at UBC? Clandinin (2013) defines narrative inquiry as a study of human lives to honour lived experiences and storytelling as a meaningful source of knowledge. Storying reflects the intent of narrative inquiry to capture experiences as a narrative composition that serves to understand experiences over time and within a context involving social interactions (Clandinin, 2013; Clandinin & Connelly, 2000). Through listening to the stories of former first year students, this research study intends to understand how the institution can more effectively support student success.

Former first year BSc students who were institutionally dismissed were recruited to partake in a series of individual interviews that were conducted either in-person or through the telephone. Since the inception of the BSc program in 2007, there have been 30 students who have not successfully progressed to the second year of study due to academic dismissal. All of these former first-year students were invited to participate through a third-party recruiter, and 10 agreed to participate. Two interviews were conducted with each participant (20 interviews total) with each interview lasting between 44 and 84 minutes. Interviews were scheduled at a time and location that was convenient for each participant. The stories shared and subsequent themes that emerged were categorized and storied into a narrative chronology that may bring a deeper understanding to the first year experience and may serve to elucidate why some first year students were not successful in this program.

To maximize trustworthiness of the findings, interviews were audio-recorded with participants' consent and transcribed verbatim to ensure accuracy. Through the process of member checking, feedback was solicited from participants to minimize misinterpreting the meaning of what they shared. Researcher memo writing during data collection and analysis served to bracket my own assumptions and biases and provided an additional avenue to examine data in greater depth through exploring relationships and explanations contained within the data. Participants provided written consent before participation, and strategies were implemented to ensure confidentiality. Additional details of these methods are outlined in Chapter 3 of this dissertation. Ethics approval was obtained from the Simon Fraser University (SFU) and UBC Behavioural Research Ethics Boards through a harmonized review.

1.6 Significance of Proposed Research

There is currently a scarcity of research in which studies have explored the first year undergraduate experience through engaging with former students who are no longer enrolled in their initial undergraduate program of study (Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; Scott et al., 2008; Wilcox et al., 2005). The studies that do exist focused exclusively on students who voluntarily withdrew from their undergraduate education. There appears to be an absence of research that investigates the experiences of former students who had been institutionally dismissed. As a result, my research study is unique as it aims to explore the experiences of former first-year UBC BDS_c students who were academically dismissed during their first year of study. In addition, this study will provide insight into student success and retention from a Canadian undergraduate professional program perspective.

Former students can provide unique insight into their academic, social, and personal lived experiences as well as insight into the influencing factors or determinants that may have contributed to their dismissal. This information will hopefully identify these students' specific needs and barriers to success in the BDS_c program. In addition, this insight may improve the program and institution's ability to meet these identified student needs. This research will not only be useful to student affairs professionals and faculty members within the Faculty of Dentistry at UBC but also to administrators and educators in post-secondary programs experiencing similar challenges nationally and internationally. The research findings may inform the designing of new resources (orientation programs), the development of new policies, and the creation of healthier student-centred environments in the faculty that would hopefully support entering students more effectively. By providing insight into the lived experiences of those students who were institutionally dismissed, the disseminated findings will uniquely add to the literature on student attrition in higher education.

1.7 Chapter Summary and Overview of Dissertation

Student attrition in higher education may negatively impact educational institutions, society, and individual students. In Canada, 43% of students dropout from university and 69% dropout from college over a four-year period (Statistics Canada, 2008). The BSc program at UBC has experienced an annual attrition rate of between 8% and 24% since its inception. Even though this program's attrition rate is lower than the national average, it remains substantially higher than UBC's average annual attrition rate of 7% for all domestic students (UBC, 2015). Research on student attrition has focused largely on the characteristics of entering students and the practices of the educational institutions. This chapter has introduced a research study that aims to explore the lived experiences of former first year students of the BSc program at UBC through a qualitative narrative approach. Stories shared and lessons learned from the study results may further inform what role the institution has in supporting student success.

Chapter 2, literature review, discusses several foundational student retention and departure theories from sociological, psychological, economic, and integrated perspectives which then lead into an analysis of how these various perspectives may problematize student attrition. In addition, this chapter reviews the empirical research related to students' motivating influences, entering characteristics, academic and social integration, student engagement, and the role of institutional policies and practices aimed at student retention. A lens to appreciate retention of minority student populations is considered and challenges and limitations of the extant literature are discussed. Chapter 2 concludes with introducing a theoretical framework that informs this research study.

Chapter 3, methodology, discusses the methods employed for this research. I position myself and my epistemological perspective and explain how both directly influence my research question and research design. The chosen method to investigate the research questions, narrative inquiry, is introduced, and the tenets of this approach are discussed. This chapter then outlines the detailed research plan including the research purpose and questions, sampling and recruitment strategies, data collection, data analysis,

challenges and limitations to the chosen approach, strategies to enhance rigour to minimize threats to trustworthiness, and ethical considerations

Chapters 4 and 5 story the experiences of 10 former first-year students of UBC's BDS program. The narrative chronology brings the reader through the sequence of events as experienced by the participants in their first year of study. The chapters highlight participants' demographical information and reasons for choosing the BDS program after which the reader embarks on a journey beginning with participants' arrival on campus and their transition to university life during their first few weeks as university students. The chapters then explore emergent themes regarding participants' academic and social experiences in their first semester followed by experiences in their second and final semester. Finally, participants share experiences they believed hindered their academic success and offer suggestions to improve the student experience.

Chapter 6 discusses how the participants' stories and emergent themes in response to my research questions reinforce what is known in the extant literature and contribute in novel ways. Emergent themes are also integrated with the theoretical framework used in this study. Namely, the discussion frames the participants' experiences within the themes of social integration, academic integration, and institutional commitment to student welfare. This chapter aims to answer the research questions and illuminate what has been learned about student retention from the participants' narratives that can help inform policy and practice within the Faculty of Dentistry, the university, and beyond.

Chapter 7 provides a conclusion to this research project. The conclusion aims to outline the significance and implications of the research conducted. I reflect on my journey and how my ideologies and practices regarding student retention have evolved based on my own lessons learned from the stories shared by my research participants. Based on the research findings, recommendations for institutional policy and practice are presented. This dissertation closes with suggestions for future research directions regarding student retention and reflective remarks on lessons learned from this research study.

Chapter 2. Literature Review

2.1 Introduction

The influences associated with the transition to and persistence in higher education can be explained from theoretical and research perspectives. Researchers in the social sciences develop theories to demonstrate the process through which particular determinants are linked to student retention and attrition in order to formulate predictive models of student persistence. An institutional research perspective primarily involves researchers from post-secondary institutions engaging with students about their experiences and evaluating program-specific efforts and resources aimed at retaining students. Drawing on theory and research, this chapter discusses several families of student retention and departure theories and highlights the most frequently used determinants of student persistence through an examination of the related empirical research in higher education. Finally, this chapter identifies the challenges and gaps in this literature that will inform the research proposed for this dissertation.

2.2 Categorization of Student Retention and Departure Theories

Although several categories of theories exist that attempt to explain student retention and departure, much of what has been researched about student persistence in higher education can be largely categorized into several broad perspectives or family of theories when attempting to understand students' experiences and levels of persistence. This chapter uses Braxton and Hirschy's (2005) approach to categorize these theories into sociological, psychological, and economic perspectives, with a focus on the psychosocial perspectives. Sociological theories focus on student changes and experiences that are associated with the characteristics of the environment or institution students attend, programs and resources available, and with the interactions with other individuals in their environment such as peers, faculty, and staff. Psychological theories focus primarily on intra-individual attitudes, beliefs, attributes, and growth that may typically describe various stages of student cognitive and identity development (Pascarella & Terenzini,

2005). These families of theories and their evolution are outlined below, and a critique of traditional theories follows.

2.2.1 Sociological influences on student persistence.

The sociological perspective highlights the influence of social structures and social forces on student departure. Family socioeconomic status, formation of friendships and interaction with other students, support from significant others, the institutional environment, institutional agents such as faculty and staff, and opportunities to engage and partake in activities comprise important social influences on which sociological theories focus that can affect college student departure decisions (Braxton & Hirschy, 2005).

Grounded predominantly in sociology, one of the most commonly used theories to study student retention in higher education is Vincent Tinto's integrationist model of student dropout that was first developed in 1975 and later reviewed in 1993. His theory postulates that students persist when they perceive academic and social congruence or fit, a concept that Tinto (1975) terms as *integration*, between themselves and the institution. Tinto (1975, 1993) posits that higher levels of academic and social integration result in higher levels of institutional commitment and to the goal of college completion (Tinto, 1975). Through supporting greater social and academic integration of students, an institution can foster higher persistence through to graduation (Tinto, 1975).

Tinto's (1975) dropout theory thus examines the social and academic factors that may influence students' decisions to withdraw voluntarily or a decision by the institution to dismiss them. Social integration involves the degree of congruency between a student and the social systems present in an educational institution (Braxton, 2000; Tinto, 1975). Social integration is established and strengthened through the acceptance by peer groups, formation of friendships, and participation in extra-curricular activities (Tinto, 1975). Interactions with faculty, staff, and peers as well as subsequent grade performance are positively correlated with the academic integration of students within their classes as well as the institution (Tinto, 1975). Academically, there are several influential variables associated with persistence: family backgrounds, attributes of the individual (gender,

ethnicity, ability, motivation), prior educational experiences and achievement in pre-college education, stage of intellectual development, and commitment to setting and achieving a goal (Tinto, 1975). For example, students from families with higher socioeconomic status and who have well educated parents have a higher level of persistence due to the cultural and socioeconomic environments in which they were raised (Tinto, 1975). Wintre et al. (2011) also reported that students who had parents with more education were more likely to succeed in post-secondary education. Likewise, in a study using *Canada's Youth in Transition Survey* data, Lambert, Zeman, Allen, and Bussiere (2004) found that students who had dropped out of higher education were more likely to come from families with lower levels of education. In addition, parents and other family members who express a high degree of interest in their child's education and encourage intellectual curiosity have a high correlation with student persistence and success (Hossler, Ziskin, Moore, & Wakhungu, 2008; Norvilitis & Reid, 2012; Statistics Canada, 2008; Tinto, 1975; Wexler & Pyle, 2012).

Tinto (1975) includes these background characteristics of students to help predict persistence and incorporates the expectations and motivational attributes of individuals, which ultimately shape students' commitment to a particular program or institution, termed *goal commitment* and *institutional commitment*. Goal commitment refers to one's educational and career expectations; Tinto (1975) proposes that this type of commitment is directly related to persistence. A student who expects to pursue doctoral studies, for example, is more likely to complete an undergraduate degree (Tinto, 1975). The latter term, institutional commitment, relates to specific institutional characteristics that may predispose students toward attending that institution over another: finances, time, and prestige may be significant institutional components that influence a student's persistence and may prevent transfer to other institutions (Tinto, 1975).

Students' backgrounds, individual characteristics, and initial commitments to the post-secondary program and to graduation interact to control the degree to which they become socially and academically integrated into the institution's social and academic environments. Over time, students' continuously re-assess their initial commitments to their program and to graduation, and these commitments may evolve as students engage

in varying experiences which may affect the perceived quality of their social and academic interactions. Tinto's (1993) revision of his original conceptual model (Tinto, 1975) involved a more detailed description of the interaction between perception and behaviour by students as they move towards greater integration with their institutional environment. In summary, Tinto's theory (1975, 1993) posits that the greater the students' level of social and academic integration, the greater their subsequent commitment to the institution and to the goal of graduation which then have positive influences on student persistence.

Tinto's (1975) theory, however, is not appropriate to study minority student populations, as the dynamics of race, class, and culture had not been adequately explored (Deil-Amen, 2011a; Melguizo, 2011; Tinto, 2006). This point will be further discussed in the section below on challenging traditional theories. His model also did not account for students who were commuters, older, and enrolled part-time (Bean & Metzner, 1985; Deil-Amen, 2011a). In addition, his theory does not provide a reliable and valid instrument for measuring academic and social integration (Braxton, 2000; Melguizo, 2011). Further, Tinto's integrationist approach does not address mechanisms associated with controlling for students' observed and unobserved characteristics upon entrance (Melguizo, 2011). That is, Tinto's (1975) longitudinal model of student departure involves the degree to which students integrate to their environment *after* students enter the institution, potentially masking the importance of student selection in the process of persistence (Melguizo, 2011).

In 1983, Pascarella, Duby, and Iverson presented a reconceptualization of Tinto's (1975) model to determine if Tinto's proposed patterns of influence would extrapolate to a non-residential commuter university setting. The premise for these later theorists was based on their argument that fewer opportunities exist in commuter institutions for social involvement; therefore, commuter students are significantly less likely than residential students to be involved in the sociocultural and intellectual life of the institution or to interact with its major agents of socialization such as faculty and peers (Pascarella et al., 1983).

Their findings reinforced the importance of students' pre-university background characteristics (race, sex, academic aptitude, parents' education, affiliation needs) and their direct effects on student persistence. Academic integration (defined as freshman year GPA, students' perceived level of intellectual development, students' perception of faculty concern for quality teaching and student development, and frequency of non-class contact with faculty) had a direct positive influence on persistence. However, social integration (defined as quality of students' relationships with student peers, quality and impact of students' informal non-class interactions with faculty, and the degree of socializing informally) had either non-significant or negative influences on persistence for commuter students (Pascarella et al., 1983).

Therefore, environmental factors appeared to play a less important role in the persistence or withdrawal decisions of commuter institution students. Pascarella et al. (1983) hypothesized that students who desire to be socially integrated are more likely to transfer to a residential institution for more social involvement if that desire was more consistent with their personality preferences (for example, high affiliation needs). Finally, the addition of the *intention* variable (intention to leave or stay where attitudes and past experiences act through intentions to influence future behaviour) had the strongest direct effect on persistence (Pascarella et al., 1983). The limitation of a single year sample at a single four-year commuter university that comprised Pascarella et al's (1983) investigation requires testing across different populations to further verify their reconceptualization.

Likewise, two years later, as sociological retention theorists continued to evolve by considering non-traditional students, Bean and Metzner (1985) recognized that older, commuter, and part-time students were comprising an increasingly larger proportion of undergraduate student bodies to which Tinto's (1975) student dropout model may not completely apply. Bean and Metzner (1985) consequently constructed a conceptual model of nontraditional undergraduate student attrition, focused on students who were older than 24 years, enrolled part-time, and non-residential.

Their model indicates that four predominant influences affect dropout decisions: past academic performance (as past behaviour and GPA can predict future behaviour and GPA), intentions to leave or to persist, family background and educational goals, and environmental variables. Environmental variables such as finances, hours of employment, family responsibilities, and encouragement from outside of the institution (family and friends) have substantial direct effects on dropout decisions (Bean & Metzner, 1985). Considering non-traditional student populations (older than 24, part-time, and non-residential) and including a stronger focus on environmental variables served to expand Tinto's (1975) model and to evolve researchers' understanding that the external environment may have a larger impact than social integration in the attrition process for nontraditional students.

Wylie's (2005) theoretical model of nontraditional student attrition extends features of Tinto's (1975) integration theory and Bean and Metzner's (1985) student attrition model in order to postulate the causes of attrition for nontraditional student populations (students between the ages of 25 and 60, enrolled part-time, and non-residential) in post-secondary education in Australia. Wylie (2005) theorizes that students' academic and social adjustments to a new educational institution within the first semester of their first year are critical. Within this period of time, students' poor adjustments result in lower academic and social self-worth that culminates in a reevaluation and separation from their academic and social activities (Wylie, 2005). For each occasion in which students' perceive their self-worth to have been negatively impacted, an increase in separation behaviours occurs (such as irregular class attendance). Wylie (2005) theorizes that these ongoing reevaluations and behaviours progressively spiral until students ultimately disengage from their commitment to persist.

Environmental variables such as family influence and involvement on student persistence has also been captured in the Family Education Model (HeavyRunner & DeCelles, 2002). Developed in 1997, this model highlights the importance of replicating the extended family structure within the college structure to enhance students' sense of belonging. This model contributed to the development of mechanisms to effectively support Native American students' persistence to graduation through empowering and

involving students' families. The family support approach focuses on assisting students' family units with identifying and developing support strategies for students rather than relying on services designed exclusively by institutional professionals. When post-secondary institutions regard student attrition as a manifestation of a lack of student ability or commitment, the result is a failure to recognize the disconnect between the institutional values and students' family values and a misunderstanding of reasons why attrition rates may be high among disadvantaged student populations (HeavyRunner & DeCelles, 2002).

Bourdieu's theory of social reproduction also captures the influence of social structures and forces on student departure (Bourdieu & Passeron, 2011). Bourdieu theorizes that societal structure determines an individual's place in society, and he states that education is a successful mechanism to reproduce social inequalities (Bourdieu & Passeron, 2011). Bourdieu argues that individuals maximize social interactions to maximize social profits to maintain their social status – termed social capital (Bourdieu & Passeron, 2011). Capital is a set of tangible useable resources and powers (Bourdieu, 1986). Access to the various types of capital is based on an individual's *habitus*, defined as a set of subjective perceptions, dispositions, and actions that individuals absorb from their environment (Bourdieu & Passeron, 2011). The structure and distribution of the different forms of capital (social, economic, and cultural) can represent the structures of the social world and may manifest as material possessions, social networks, educational achievements, social status, and financial status (Bourdieu, 1986; Bourdieu & Passeron, 2011). This power or capital then legitimizes itself by legitimizing the distinction that it produces (Melguizo, 2011).

Similarly to Tinto (1975), Bourdieu would argue that those students with parents with higher socioeconomic status and post-secondary education are more likely to be successful in higher education themselves as they can build upon their family habitus, social, economic, and cultural capital. Familial knowledge of the higher education system can be regarded as a cultural award and transmitted by the cultural capital of the family that may assist students' negotiation through the educational system (Andres, 1994). Thomas (2002) used the concept of institutional habitus to explain student-institution fit,

and Lehmann (2007) used social reproduction theory to study student persistence in higher education by examining how students' sense of belonging and perceptions of fit with other peers corresponded with their social habitus that ultimately affected dropout decisions.

The concept of suitability or fit to an educational program or profession is captured in John Holland's person-environment fit theory which has also been used as an approach for advancing the understanding of student success in higher education (Holland, 1996; Smart, Feldman, & Ethington, 2006). People flourish in their work and students excel in their programs when there is a good fit between their personality type and the characteristics of the environment (Holland, 1996). A lack of congruence or fit between personality and environment leads to dissatisfied experiences and lowered performance (Holland, 1996). Holland proposes that the choice of vocation or college major is an expression of one's personality and that most people can be classified into one of six personality types: realistic, investigative, artistic, social, enterprising, or conventional (Holland, 1996; Smart et al., 2006). The model proposes six analogous work or educational environments and offers a hexagonal model to assess the level of fit between these personality types and the environment.

Smart et al. (2006) describe three fundamental assumptions of Holland's theory associated with the model's three components: the individual, the environment, and congruence. Firstly, the *self-selection* assumption assumes that students choose their educational programs based on what they believe to be compatible with their personality types because such environments would provide agreeable roles or opportunities that correspond with their personality traits. Secondly, the *socialization* assumption involves the belief that programs or institutions require and reward students for displaying attitudes, values, and interests that align with those of the institution and those who dominate the respective environment. And thirdly, the *congruence* (fit) assumption suggests that educational satisfaction and success are a function of fit between individuals and their environments (Smart et al., 2006).

Research on student persistence in higher education has focused largely on either the characteristics of the students entering higher education or the practices of the educational institution. Works by Chatman (1991), Etzioni (1975), and Holland (1985) postulate that organizations have two general strategies for ensuring successful incorporation of individuals: selection and socialization. This concept of person-environment fit is created in part by an assessment of individuals upon entry (selection) as well as how the organization interacts with and influences individuals' values and behaviours during membership (socialization) that ultimately determines congruence and subsequent success or persistence (Chatman, 1991; Holland, 1985). Etzioni's (1975) compliance theory also speaks to the role that organizations directly play regarding the behaviour of its members and their involvement and fit in the organizational environment once selected (Lunenbergh, 2012). Admission processes typically serve the function of selecting individuals whose values are compatible or who *fit* with organizational and professional values while screening out those whose values are incompatible (Chatman, 1991). The process of *gatekeeping* discussed in Chapter 1 is such an example of institutional agents assessing candidates' compatibility or fit with a program and profession prior to entry.

Collectively, sociological theories of student persistence are based on the concept of student-environment congruence. How students interact with their environment is central to their decision to persist or withdraw from an educational institution. Whether termed academic and social integration, institutional fit, social habitus, or congruence, the premise of these sociological theories involves the interaction between students' and the surrounding social forces that determine the level of compatibility between a student and the environment that ultimately informs decisions to persist or depart.

2.2.2 Psychological influences on student persistence.

Although many researchers have depended on sociological theories to explain student retention, student dropout and persistence can also be understood from a psychological lens (Bean & Eaton, 2000). In addition to recognizing non-traditional students, a transition from primarily examining sociological variables to an appreciation

and incorporation of psychological influences captures one aspect of how student retention models have evolved over the past few decades. Pascarella and Terenzini (2005) have noted a growing dominance of the psychological research paradigm in higher education student retention literature. Psychological characteristics and processes that distinguish between students who persist and those who depart focus on the level of the individual student and examine attitudes and beliefs, academic aptitude, levels of motivation, personality traits, and student development (Braxton & Hirschy, 2005).

For example, Alexander Astin's (1984) theory of involvement contends that the degree to which students become involved in the social and academic environments of their educational institution depends on the quantity and quality of physical and psychological energy that students invest in their post-secondary experience. Such involvement takes many forms such as absorption in academic work, participation in extracurricular activities, and interaction with faculty and staff. Astin (1984) clearly intends for involvement to be behavioural in meaning, as he emphasizes the importance of what a student *does* rather than what a student thinks or feels (Berger & Milem, 1999). Responsibility lies both with the institution to provide the opportunity for student involvement and to ensure meaningful educational experiences as well as with the student to take ownership in making the experience personally relevant (Astin, 1984).

Astin (1984) argues that students develop based on three core concepts: inputs, environment, and outcomes, known as the *I-E-O* model. When relating to Astin's (1984) concepts, *input* refers to students' backgrounds and experiences prior to their post-secondary experience; *environment* refers to the social and academic experiences students encounter in their higher education; *outcomes* refers to the knowledge, attitudes, skills, and values that students attain from their studies.

Astin (1984) indicated that there are numerous environmental variables that may affect student success which he categorized into eight classifications: institutional characteristics, student peer groups, academic preparedness, faculty characteristics, curriculum, financial aid, field of study, and place of residence. Astin (1984) also created five basic assumptions about student involvement. He suggests that involvement requires

an investment of psychosocial and physical energy. Secondly, involvement is continuous. Thirdly, aspects of involvement include both quality and quantity. Fourthly, what students gain from being involved is directly proportional to the extent to which they are involved related to both the quality and quantity of energy exerted. Finally, academic performance is positively correlated with the student involvement. Astin (1984) believed that post-secondary institutions that are able to provide a rewarding meaningful experience will increase student involvement and consequently increase student retention and success.

What does not appear to be clear in Astin's (1984) student involvement theory is how the quality or the quantity of physical and psychological energy that students invest in their post-secondary experience can be specifically measured. Additionally, similar to critiques related to Tinto's (1975, 1993) model that will be discussed later regarding the requirement to assimilate to a dominant culture to become integrated with the institution, Astin's (1984) theory does not recognize that minority student populations may confront additional challenges in efforts to become physically and psychologically involved in a new institution. Analogous to Tinto (1975, 1993), Astin (1984) developed his *I-E-O* model based on a student population that was predominantly White, male, and middle-class, failing to recognize that other minority student populations may not have the social or cultural capital or predisposition to successfully negotiate the university system (Pidgeon, 2008). For example, Janes' (1997) study explored the experiences of African-American baccalaureate nursing students through the lens of Astin's (1984) theory and reported that Black students perceived predominantly White campuses to be cold and uncaring thus negatively affecting these students' willingness to exert energy to become involved and integrated with the institution.

Bean and Eaton (2000) explain that Tinto (1975, 1993) fails to describe the mechanism through which students become academically and socially integrated, so they devised a student retention model based on four psychological theories to help explain the process through which students become integrated with their institution. Bean and Eaton's (2000) psychological model of college student retention acknowledges the roles that student background characteristics, social and academic integration, and goal and

institutional commitment have with persistence (see Figure 1). However, they also emphasize the significance of psychological processes involved with integration by incorporating several established psychological theories to help explain how behaviour and persistence can be psychologically motivated. These psychological theories include the attitude-behaviour theory, the approach/avoidance model, the self-efficacy theory, and the attribution theory. Bean and Eaton (2000) contend that their model applies to students who voluntarily withdraw as well as to students who are dismissed by their institutions.

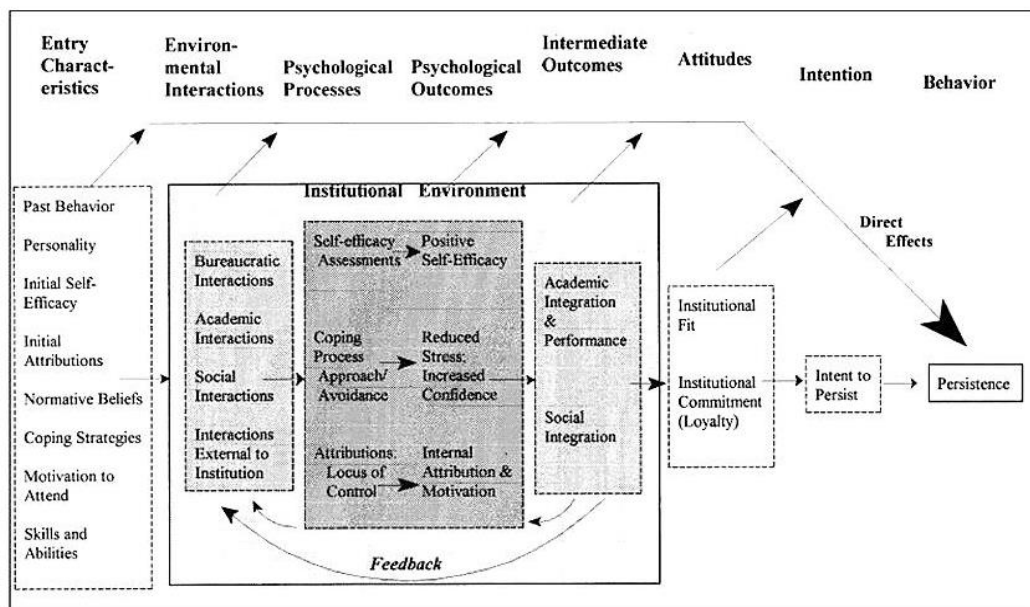


Figure 1. Bean and Eaton's (2000) Psychological Model of College Student Retention

Fishbein and Ajzen's (1975) attitude-behaviour theory links beliefs, attitudes, intentions, and behaviour. More meaningfully, beliefs affect attitudes that affect intentions which ultimately inform behaviours (Bean & Eaton, 2000). Beliefs can comprise personal beliefs and normative beliefs, the latter of which refers to the beliefs of individuals who are important to the student such as parents, siblings, close friends, and mentors (Bean & Eaton, 2000). Influential normative beliefs may include opinions about the quality of the institution, the ability of the student, or the usefulness or applicability of the education. These beliefs affect a student's intention to perform a behaviour. As

Pascarella et al. (1983) also maintained, intention is the best predictor of behaviour; the intent to leave college is the best predictor of actual departure (Bean & Eaton, 2000).

The approach/avoidance model as part of coping theory pertains to the process through which students adapt to changing life circumstances, such as the transition from secondary school to college or university (Bean & Eaton, 2000). Coping is a collection of behaviours one uses to adapt with the goal of stress reduction (Bean & Eaton, 2000). Coping serves to improve an existing situation or defuse a potentially harmful one; students who cope and manage to adapt to the changes effectively are more likely to integrate academically and socially and therefore less likely to leave their post-secondary institution before graduation (Bean & Eaton, 2000). The approach/avoidance model examines the ways in which students integrate into their educational environment. Approach-type behaviours are aggressive proactive responses intended to manage and reduce stress, while avoidance-type responses involve unreceptive passive practices intended to avoid the stressors (Bean & Eaton, 2000). Bean and Eaton (2000) found evidence of an association between coping behaviours and academic and social integration: academic avoidance behaviours such as missing classes or avoiding studying had a negative relationship with academic integration, while academic approach behaviours such as attending class, asking questions, and seeking help positively related to academic integration. Social avoidance behaviours involving activities off campus related negatively to social integration, and social approach behaviours including involvement with on-campus extra-curricular activities correlated positively to social integration (Bean & Eaton, 2000).

Bean and Eaton (2000) also incorporate Bandura's (1997) model of self-efficacy to further explain how attitude, motivation, and behaviour relate to academic and social integration and ultimately influence a student's decision to persist in higher education. Self-efficacy represents students' own perceptions of their ability to complete a task or reach a specific outcome (Bandura, 1997). As students recognize their competence, increases in self-confidence and self-efficacy lead to higher aspirations for persistence (Bean & Eaton, 2000). There is a direct relationship between self-efficacy and goal accomplishment (Bandura, 1997). Thus, high levels of self-efficacy for academic

performance and social engagement are extremely important for integration and success (Bean & Eaton, 2000).

Finally, in Weiner's (1986) attribution theory, locus of control refers to an individual's ability to provide an internal or external causal perspective for past experiences. An internal local of control acknowledges that personal attributes such as aptitude or skill are responsible for an outcome, while an external locus of control attributes outcomes to influences outside of personal control such as luck or fate (Weiner, 1986). Weiner (1986) posits that individuals who believe that they have control over outcomes are more likely to be motivated to respond to them, and individuals who believe that outcomes are beyond their control are less motivated to take action to improve a situation. Therefore, an internal locus of control has a positive correlation with academic success and achievement (Bean & Eaton, 2000).

Bean and Eaton's (2000) psychological model of student retention incorporates individual psychological processes into existing sociologically-focused retention theories that illustrate a more comprehensive understanding of the persistence process. As Figure 1 illustrates, entering students' beliefs about attending higher education stem from their family background, individual personality characteristics, past behaviours, personal and normative beliefs, coping strategies and successes, initial self-efficacy, initial attributions, motivations, and skills, all of which influence how they react to the social and academic systems of an institution (Bean & Eaton, 2000). Interactions with the institutional environment result in three psychological processes: coping processes, self-efficacy assessments, and attributional perceptions. If such interactions are favourable, then three outcomes result: reduced stress, increased self-efficacy and self-confidence, and an internal attribution (Bean & Eaton, 2000).

These internal psychological processes are reciprocal, iterative, and ongoing involving continuous feedback, reevaluation, and adjustment and directly affect student motivation (Bean & Eaton, 2000). Student experiences affect psychological processes and outcomes, which in return affect student experiences. As students progress and gain more experience interacting with the institution's social and academic subsystems, they

begin to perceive themselves as being either effective or ineffective with managing stress, as having either a high or low sense of self-efficacy, and as having either a perceived internal or external locus of control. Bean and Eaton's (2000) model theorizes that those students who are effective at managing stress, who have a positive self-efficacy, and who have an internal attributional perspective are more likely to have higher levels of social and academic integration and goal and institutional commitment. As a result, these students are more likely to have intentions to persist and will consequently persist (Bean & Eaton, 2000).

Bean and Eaton (2000) make a direct connection between these non-cognitive attributes and academic and social integration; however, they do not elaborate on the types of courses or programs that may enhance these individual personal attitudes and skills (Melguizo, 2011). In other words, what does not appear clear is the role or responsibility of the educational institution in fostering the development of these non-cognitive attributes to support the success of its students.

Sedlacek's (2004) work is also grounded within a psychological lens as he advocates for forms of intelligence such as emotional intelligence, social intelligence, experimental intelligence, and contextual intelligence that explains students' ability to adapt to changing environments and manage information in changing contexts. Individual attributes such as positive self-concept, realistic self-appraisal, preference for long-term goal setting, leadership experience and confidence, and knowledge acquired in a field are all correlated with college persistence and success (Sedlacek, 2004). Similar to the limitation identified in Bean and Eaton's (2000) psychological model of student retention, there does not appear to be an identified role for the educational institution or faculty to help strengthen Sedlacek's (2004) individual non-cognitive attributes to support student development.

There are several commonalities when comparing the sociological and psychological families of student retention and departure theories. Firstly, both perspectives highlight the importance of student background characteristics. Secondly, both perspectives argue that dropout occurs through a longitudinal process. Finally, both

perspectives adopt the notion that persistence depends largely on the concepts of integration and student-institution fit.

Examples include but are not limited to Holland's (1996) person-environment fit theory (presented earlier in the discussion on person-environment congruence) that has psychological and sociological components by encompassing both predispositions and behaviours of students as well as characteristics of the institution that influence student persistence. Chickering and Ressler's (1993) theory of student development outlines how the psychological factors involved in the development of student identity (*vectors of development* outlined earlier) can be influenced by an institution's academic and social environment. Kuh's (2009) definition of student engagement, which acknowledges the importance of both the energy students devote to their studies as well as institutional efforts in supporting integration, gives recognition to both sociological and psychological factors that affect students' experiences. These works consequently recognize that both the individual student and the institutional environment may influence student persistence. Braxton and Hirschy's (2005) theory of college student departure also incorporates an integrated psychosocial perspective. As their model informs this doctoral research for reasons that will be outlined to conclude this chapter, a detailed overview of their theory is presented below.

2.2.3 Braxton and Hirschy's (2005) theory of college student departure.

Braxton and Hirschy (2005) proposed an integrated perspective to explain student departure by combining sociological and psychological influences with organizational predictors in their theory of student departure. Their theory is presented here since it clearly incorporates the multiple aforesaid perspectives and responds to some of the previously identified limitations with several foundational theories such as Tinto's (1975). Tinto's (1975, 1993) model predicts retention at residential institutions rather than commuter colleges in which the social realm is not as prevalent as it is in residential educational institutions (Bean & Metzner, 1985; Braxton & Hirschy, 2005; Pascarella et al., 1983). As a result, Braxton and Hirschy (2005) formulated two adaptations of Tinto's (1975, 1993) model of academic and social integration: one which is more applicable to

residential students because of the relative significance of social integration, and the other of which is more relevant to commuter students because of the significance given to organizational influences and the external environment.

Braxton and Hirschy (2005) incorporated psychological influences from Astin's (1984) theory of student involvement and Bean and Eaton's (2000) psychological theory of student retention. For residential students, they included student entry characteristics identified in Tinto's (1975) theory and added the ability to pay which translates into students' satisfaction with the costs of the institution, as students with financial barriers who may not be able to engage in campus life may be less likely to persist (Braxton, Hirschy, & McClendon, 2004). Braxton and Hirschy (2005) also expanded Tinto's (1975, 1993) student integration model by adding the following five antecedents to social integration for residential students: proactive social judgment, psychosocial engagement, communal potential, institutional integrity, and institutional commitment to the welfare of the students. Proactive social judgment refers to a student's propensity to approach the pressure of social interaction positively. Psychosocial engagement pertains to the level of psychological energy students devote to their interactions with peers and to involvement with on-campus activities. Higher levels of proactive social judgment and psychosocial engagement lead to higher levels of social integration and students' institutional commitment and thus their likelihood to persist (Braxton & Hirschy, 2005).

Braxton and Hirschy's (2005) next several antecedents to social integration stem from sociological and organizational perspectives. Communal potential is based on students' assessments of how likely they believe they will find meaningful social relationships with student peers on campus. That is, students must feel or perceive that there are other students who share similar values, beliefs, and goals (Braxton & Hirschy, 2005). The authors acknowledge that minority students who are underrepresented on campus may struggle to find a sense of community among peers and this subsequent communal potential.

Finally, students' perceptions of two organizational constructs, institutional integrity and institutional commitment to student welfare, can also affect students' levels

of social integration. An institution demonstrates integrity by staying true to its mission and goals (Braxton & Hirschy, 2005). Students who respect their institution's actions are more likely to become integrated (Braxton & Hirschy, 2005). Students who perceive that faculty and administrators demonstrate respect and value students and care about and promote student success (institutional commitment to student welfare) are more likely to affiliate with members of the institution (Braxton & Hirschy, 2005). Conversely, students who feel that institutional policies, practices, programs, and values do not align with supporting student welfare and success may feel distant with the campus community and have lower levels of social integration (Braxton & Hirschy, 2005).

For residential students, Braxton and Hirschy (2005) posit that students' entry characteristics shape their initial commitment to the goal of earning a degree (GC-1) and their initial commitment to the institution (IC-1). The IC-1 can in turn influence students' perceptions of the five antecedents to social integration which then informs students' subsequent reassessment of the institutional commitment (IC-2) and ultimately the decision to persist. Figure 2 presents a summary of Braxton and Hirschy's (2005) revised theory for student departure for residential students.

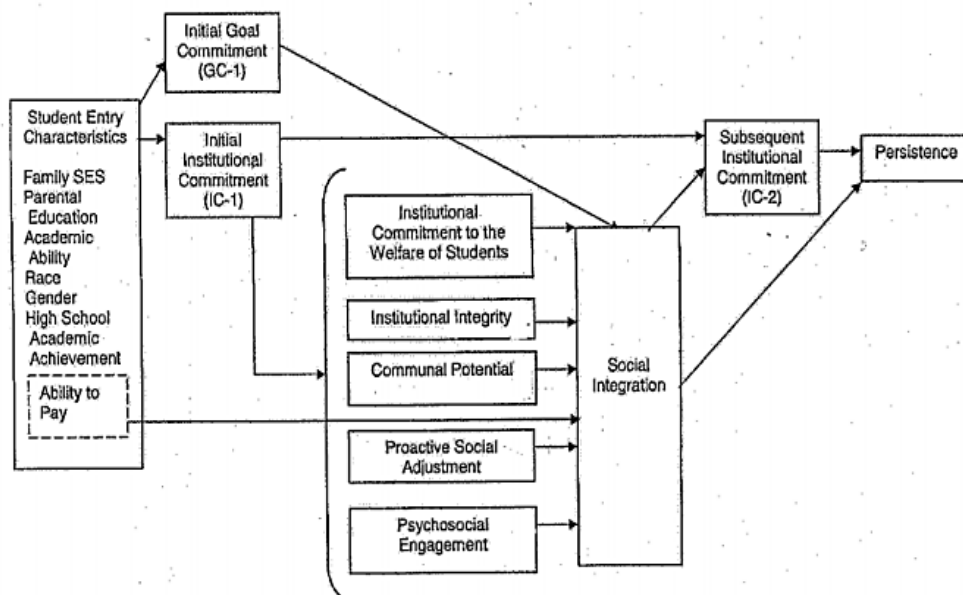


Figure 2. Revised Model of Student Departure for Residential Students (Braxton & Hirschy, 2005)

Since Braxton and Hirschy (2005) theorized that commuting students typically hold their primary social memberships with family and friends off-campus, they developed a new theory for commuter students that reduced the significance of on-campus social integration. They placed greater emphasis on the influences of student entry characteristics (family background, parental education, academic ability and prior achievement, academic and career aspirations, and self-efficacy), the external environment (hardship on family, financial stress, employment, and limited time spent at home), and the internal campus environment or organizational characteristics including involvement in academic learning communities and perceptions of institutional integrity as well as institutional commitment to the welfare of students.

Unlike residential students, commuter students may not solely be focused on engaging with the university experience since work and family commitments may also have a daily impact on their institutional involvement and commitment (Braxton & Hirschy, 2005). Lower educational costs as well as support from family and friends can be essential to keeping commuting students enrolled (Braxton et al., 2004). The developing theory of commuter student departure emphasizes academic over social integration as commuter students' main interactions occur in the classroom (Braxton & Hirschy, 2005; Braxton et al., 2004). Classroom life, classroom engagement, and the sense of belonging to an academic learning community have a significant role in commuter students' decisions to persist (Braxton et al., 2004). Thus, the external environment and organizational characteristics have a significant impact in commuter students' levels of institutional commitment and willingness to persist (Braxton & Hirschy, 2005). Figure 3 illustrates these influences identified by Braxton and Hirschy (2005) for commuter students.

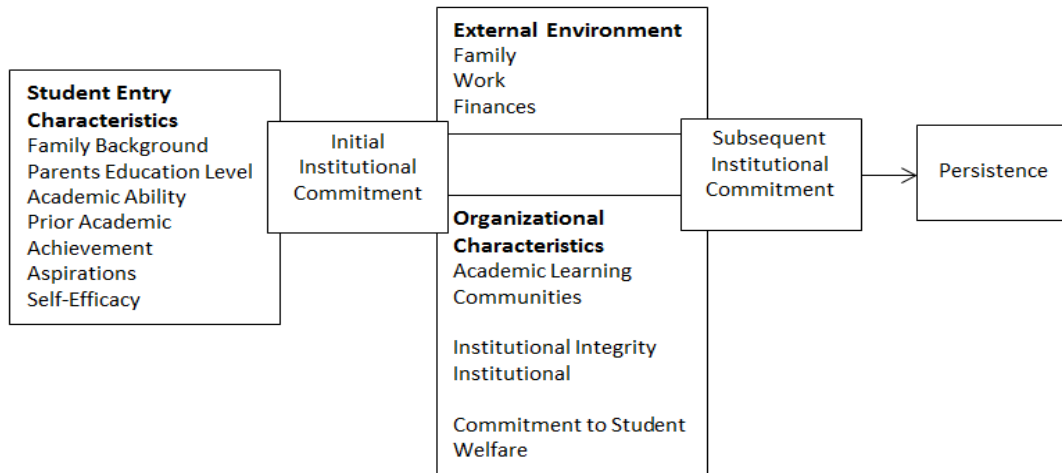


Figure 3. Braxton and Hirschy's (2005) Model of Student Departure for Commuter Students

Braxton and Hirschy (2005)'s theory of college student departure informs the research conducted in this dissertation. The rationale for the selection of this theoretical framework is discussed in Section 2.9. This integrated approach of perspectives to student departure incorporating sociological, psychological, and organizational influences helps provide a more inclusive illustration of the factors that may affect student persistence. In addition, these integrated theories more evenly distribute the importance of the role of both the student and the institution in ensuring student success.

2.2.4 Economic influences on student persistence.

Weighing the costs and benefits of attending higher education, assessed by the individual student, captures the economic perspective to student persistence (Braxton & Hirschy, 2005). In 1964, Gary Becker authored *Human Capital* in which he explored the empirical applications of human capital theory by emphasizing the importance of social rates of return to education (Becker, 1993). Human capital theory proposes that personal investments to formal education and other learning opportunities to advance one's knowledge and abilities can yield financial returns on a student's investment of time, energy, and money (Braxton & Hirschy, 2005; Melguizo, 2011). Human capital theory is

based on rational choice; thus, students' depart college if they perceive the cost of attending an institution to outweigh the benefits of attending (Melguizo, 2011). Studies on student attrition informed by an economic perspective focus on the costs of attending an institution and a student's ability to pay, as both of these factors affect persistence (Braxton & Hirschy, 2005). An economic perspective may problematize student attrition on external factors such as financial ability and economic reward (or lack thereof) for pursuing higher education.

Some scholars have questioned the value of human capital theory or the rational choice model, arguing that undergraduate students are not yet capable of conducting sophisticated cost-benefit analyses pertaining to the potential monetary benefits and direct educational expenses associated with higher education (Bean & Eaton, 2000). However, DesJardins and Toutkoushian (2005) state that a rational choice model of consumption merely asks students to form estimates of the benefits and costs of enrolment and that the decision to continue with their educational pursuits is more complex than analyzing only the financial benefits of becoming formally educated. Rather, students make decisions about persistence based on the satisfaction that they experience involving financial, social, and academic influences (DesJardins & Toutkoushian, 2005; Guerrero, 2010).

In addition, price-response theory, which examines the correlation between students' enrollment and persistence decisions to changes in tuition and financial aid, and the theory of targeted subsidies, which proposes that student retention can be enhanced through subsidies based on students' ability to pay, represent two other economic approaches to studying student persistence as both theories are also centred around the concept of cost-benefit analysis (Guerrero, 2010; St. John, Cabrera, Nora, & Asker, 2000).

Guerrero (2010) states that the majority of econometric studies that have explored student retention in higher education emphasize the influential significance of non-financial factors on persistence such as social and academic integration as well as key psychological processes. However, several researchers have empirically studied the effects of economic resources and the availability of financial aid on student persistence

(Kerkvliet & Nowell, 2005; Leppel, 2005; Singell, 2004; St. John, Hu, & Tuttle, 2000). In these studies, although difficult to know the exact financial resources available to students and families, empirical support has been provided to suggest a positive relationship between student and family income levels and decisions to enrol and persist in higher education.

2.3 Problematizing student attrition

From the sociologically-informed works of Tinto (1975), Pascarella et al. (1983), and Bean and Metzner (1985), attention was given to the notion that students bring to higher education a set of characteristics that influence levels of social and academic integration which affect levels of goal and institutional commitment that ultimately affect persistence. As a paradigm, sociological theories of student retention focus on how students interact with their environment. Sociological theories collectively consider how the interaction between students and surrounding social structures and forces influences the degree of integration or student-environment fit. Thus, sociological theories tend to problematize student attrition on a lack of student-environment congruence. However, with whom the responsibility lies for developing congruence or ensuring student integration remains largely unclear.

Tinto (2006) critiqued earlier empirical works as focusing too heavily on the attributes, skills, and motivation levels of entering students thus implicitly blaming students for not completing their education. Tinto (2006) also proclaimed that he was the first to describe a longitudinal model that made explicit connections between the environment and individuals and asserted that students and institutions play an equally important role in the persistence process.

However, Deil-Amen (2011b) critiques Tinto's (1975) model as depicting students as the primary authors of their own success in striving to become socially and academically integrated while the role of the institution and its agents tends to be underrepresented. Deil-Amen (2011b) and Tierney (1992) argue that the assimilationist nature of traditional student integration models, such as Tinto's (1975), places too much responsibility on students to adapt by improperly placing excessive weight on the importance of the

characteristics and behaviours of students rather than recognizing the pivotal role that institutional agents have in providing an environment that facilitates student integration and success. Pidgeon (2008) asserts that this assimilationist approach extends beyond the level of the institution, particularly for minority student populations, since the educational system in Canada continues to perpetuate values of Western beliefs and epistemologies.

In addition to sociologically driven theories (Bean & Metzner, 1985; Pascarella et al., 1983; Tinto, 1975, 1993) which focus on students' backgrounds, predispositions, and ability to integrate to the institution, this tendency to devote attention to the characteristics and behaviours of students as primary determinants of their success is also captured within the emerging contemporary efforts to understand retention from psychological perspectives. While the attention given to student characteristics and behaviours is appropriate as individual attributes can affect persistence, the growing dominance of the psychological research paradigm has resulted in a reduction in attention directed to socialization influences of institutions, campus environments, and associated agents (Pascarella & Terenzini, 2005). As more contemporary psychological theories have emerged, Pascarella and Terenzini (2005) note that there has been a decline in the research of how, and to what extent, the attitudes and behaviours of faculty and administrators and the environments of institutions contribute to student success.

Caution should be placed on focusing heavily on student characteristics and behaviours thereby problematizing student attrition on the students. Illustrative of this tendency are Astin's (1984) focus on student involvement and levels of psychological energy exerted, Bean and Eaton's (2000) incorporation of students' coping strategies, levels of self-efficacy, and attributions, and Sedlacek's (2004) emphasis on students' emotional and contextual intelligence as predictors of persistence.

Knowledge of the likelihood of student persistence, satisfaction, and success requires an understanding of both students' predispositions and behaviours as well as campus environments (Smart et al., 2006). There are works that demonstrate and emphasize the importance of institutional environments and efforts to student success. Holland's person-environment fit theory encompasses both psychological and

sociological components in his efforts to explain how both students and the institution have important roles in achieving congruence (Holland, 1996). Chickering and Reisser (1993) focus on the positive influences of the college environment on student development and the important role of the institution and faculty in the formation of student identity. Kuh's (2009) definition of student engagement acknowledges the importance of the time and energy students devote to their studies as well as institutional efforts to make its resources visible and available, to organize curriculum, and to attract students to participate in activities that lead to satisfying experiences. These works include the institution when problematizing student attrition through acknowledging the significance of its role in supporting student success. Voigt and Hundrieser (2008) state that critical components that have shown to facilitate student success and, therefore, institutional success, include: satisfied students, caring competent faculty, and concerned and aware administration.

By including additional antecedents to Tinto's (1975) construct of social integration, Braxton and Hirschy (2005) also shift more of the responsibility to support student success and ultimately retain students towards the institution. Incorporating key influences such as institutional integrity and institutional commitment to student welfare in their model works to reduce the blaming of students for dropping out and recognizes that the institution has a responsibility to ensure that policies and programs are developed and implemented to the degree that students' perceive these support services and practices as mechanisms to foster their success.

2.4 Challenging Traditional Theories

There are inherent problems with drawing from traditional theories, such as Tinto's (1975) or Astin's (1984), to understand student retention. As acknowledged earlier, traditional theories are founded on the concept of a traditional student normalized as White, 18-23 years old, enrolled full-time, and residing on campus (Deil-Amen, 2011a; Pidgeon, 2008). Tinto himself acknowledged that student retention theory in earlier works lacked complexity and detail (Tinto, 2006). Traditional theories do not account for other populations such as non-White, low-income, commuter, and older adult

students, particularly those who may be working full-time and enrolled in part-time evening studies (Bean & Metzner, 1985; Pidgeon, 2008).

For commuting students, Pascarella et al. (1983), Bean and Metzner (1985), Tinto (1993), and Braxton and Hirschy (2005) suggest that background characteristics and external factors have a greater impact on persistence than on-campus factors. Deil-Amen (2011a) also challenges the dichotomous notion of integration, frequently presented along purely academic or social lines. Rather, students may experience *socio-academic integrative moments* which can be activities and interactions during which both academic and social experiences combine concurrently to strengthen learning and feelings of belonging (Deil-Amen, 2011a).

Of particular criticism is the assumption in Tinto's (1975) theory that students must dissociate from their home cultures and adopt or assimilate to the values and practices of the dominant campus culture in order to integrate successfully and subsequently persist (Deil-Amen, 2011a; Museus & Quaye, 2009; Pidgeon, 2008). This aspect of Tinto's (1975, 1993) work is contentious because he assumes that students come from the dominant culture and that their values align with those of the institution (Pidgeon, 2008). Tierney (1992) and Deil-Amen (2011a) question Tinto's (1975) student integration model, maintaining that Tinto makes assumptions regarding students who experience an educational journey in a culture that may or may not be their own, such as students of colour within predominantly White institutions. Within such a structure, there is no allowance for entering students who do not wish to relinquish their own identity in order to assimilate or integrate into the normative culture of the institution (Elkins, Braxton, & James, 2000; Tierney, 1992) Expecting students to sever ties with their culture places an unnecessary burden on college students of minority background to assimilate to their campus environments (Deil-Amen, 2011a). This idea of a *rite of passage* is problematic for non-traditional students in predominantly White institutions because it legitimizes one culture over the other (Melguizo, 2011).

Another challenge with many of these student retention theories is the emphasis that seems to be placed on students. Students appear to have been given the primary

responsibility to integrate into the academic and social systems of their institutions (Deil-Amen, 2011b). Tinto's (1975) focus on individual characteristics and *students'* levels of commitment, Astin's (1984) definition of involvement centring around the quantity and quality of physical and psychological energy that *students* exert, and Bean and Eaton's (2000) individual *student* psychological influences are several examples of this observation. Institutions often seem absolved from their responsibilities to modify policy and practices to meet the needs of its students (Tierney, 1992). The process of integration may need to be re-conceptualized to more appropriately acknowledge a collaborative interaction between students and the institution.

Social and academic integration, occurring primarily through peer group associations, extracurricular activities, formation of friendships, and interactions with faculty and staff, can result in varying degrees of collective affiliation to an institution. Each of these areas can be viewed as significant social rewards that frame students' general evaluation of the costs and benefits of higher education attendance and persistence and that may modify their goal and institutional commitments (Tinto, 1975). This term, *evaluation*, implies a voluntary self-selection process and a cognizant decision by the student to withdraw or transfer from an institution. The question then remains: to what extent do social and academic integration specifically influence student attrition that results from institutional dismissal rather than voluntary withdrawal?

The relevance and applicability of these student retention theories when applied towards understanding predictive factors associated with students who are institutionally dismissed are questionable. Tinto (1975) explicitly states that distinguishing between students who dropout due to academic dismissals from those who voluntarily withdraw is important as reasons for leaving are different between these groups; however, his model arguably focuses on those students who *choose* to persist from those who do not. Tinto writes: "In the final analysis, it is the interplay between the individual's commitment to the goal of the college completion and his commitment to the institution that determines whether or not the individual *decides* [emphasis added] to drop out" (Tinto, 1975, p.96). Similarly, Pascarella et al.'s (1983) reconceptualization of Tinto's (1975) model and

Bean and Metzner's (1985) model of student attrition also focus on the relationship between student persistence and voluntary withdrawal.

Likewise, Bean and Eaton (2000) state: "Our assumption is that the model presented here will work for both voluntary and involuntary leaving" (p.55). However, the language used throughout Bean and Eaton's (2000) paper also implies a model proposed to understand voluntary withdrawal only. They write: "The *decision* [emphasis added] to depart from college can also be understood in terms of psychological theories and processes" (Bean & Eaton, 2000, p.48) and "... a given behaviour is a *choice* [emphasis added]..." (Bean & Eaton, 2000, p.56). As such, their work appears to focus on students' withdrawal decisions. Researchers such as Lehmann (2007) have used Bourdieu's (1977) theory of social habitus to investigate students' perceptions of fit that ultimately affected dropout decisions, again referring to influences affecting voluntary withdrawal. Therefore, the relevance and validity of these student retention theories to understand predictive factors associated with students who are institutionally dismissed rather than those who voluntarily withdraw require further exploration.

2.5 Research on Student Persistence

Student retention in higher education has been an international concern for several decades; few topics in higher education have commanded as much attention (Barefoot, 2004). Despite the substantial benefits associated with the completion of higher education, of the students who enroll in Canadian institutions, 43% dropout from university and 69% dropout from college over a four-year period (Statistics Canada, 2008). Similarly, only approximately 59% (57% in public institutions and 66% in private institutions) successfully progress and graduate with a baccalaureate degree in the USA within a six year period (Bowman & Denson, 2014; Seidman, 2012; NCES, 2014).

One needs to examine these statistics with a critical eye, however, by considering if the length of time to degree completion affects completion rates and if students commenced and completed their degree at the same institution or transferred to another. For example, the *Institute for Higher Education Policy* and the US Department of Education assert that the US graduation rates appear artificially low if only the traditional

four-year completion time at the same institution is considered (Adelman, 2006, 2009). According to these two agencies, only 33% of students who started a bachelor's degree program in the USA completed that degree from the same institution in the traditional four-year period. Over a six-year period, between 54% and 59% of students complete a degree at the same institution. When the option of earning a degree from a different institution than the one in which students commenced study (transfer-outs) is included, then the six-year completion rates climb to 60% to 67% in the USA (Adelman, 2006, 2009; NCES, 2017).

Until recently, research on Canadian students' post-secondary progression was stymied by data sets that did not follow students over the course of their post-secondary education. The Education Policy Research Initiative indicates that the Youth in Transition Survey (YITS) has helped address the gap by including data that follows Canadian students who transfer-out to another institution or who temporarily interrupt their education (stop-outs) at the same institution (Childs et al., 2016; Finnie, Childs, & Martinello, 2014). There are notable differences between institution-specific retention rates and the overall persistence rates for the post-secondary education system in Canada. When reporting dropout rates, many institutions include students who transferred to another institution thereby overstating the dropout problem (Finnie et al., 2014). According to the YITS and the sample of approximately 12,000 Canadian youth, only 56% of Canadian students in higher education (college and university) graduate from the same post-secondary institution in which they started over a five year period (Childs et al., 2016). When students who leave one educational institution and transfer to another are included, then the five-year graduation rate climbs to 73% in Canada (Childs et al., 2016). After five years, approximately 23% of university students and 18% of college students transfer to another educational institution (Childs et al., 2016).

An increasing number of scholars are recognizing multi-institutional attendance involving students who transfer between institutions, or *swirl* (Bahr, 2012; Rab, 2004). The traditional linear journey in which students enter one post-secondary institution from high school and complete their education at this same institution is decreasing (Bahr, 2012). Taylor and Jain (2017) assert that student transfer and mobility is now a

predominant feature of the higher education system in the USA and is becoming a new norm for the college student experience. They also suggest that higher education policies and practice need to adapt to these transfer student behaviours by providing mechanisms to more easily facilitate such institutional transfers.

Bahr (2012) states that a greater mobility exists among community college students who *upward transfer* to a degree-granting four-year institution but acknowledges that upward transfer represents only one type of institutional transition. For example, an earlier study by Bahr (2009) that examined student practices in California's community college system found that 27% of first-time college students transferred laterally to another community college within six years of initial enrollment. In their literature review, Taylor and Jain (2017) articulate some of the primary reasons for students' transfer decisions in the USA, many of which appear to be unrelated to academic performance. They found students' reported reasons for transferring from their first institution were to pursue a baccalaureate degree (57%), personal reasons (38%), finished classes (28%), scheduling conflicts (18%), dissatisfaction (17%), financial reasons (11%), family responsibilities (6%), and academic challenges (3%).

Nonetheless, non-completion rates remain high and result in short-term and long-term financial costs for the educational institution as well as potential financial and emotional trauma for the affected students. These statistics have been consistent throughout the past few decades and in other continents. For example, retention rates over the past two decades in Australia indicate that up to 33% of all students entering university fail to graduate within eight years, with the largest attrition rate occurring in the first year of study (ACER, 2011; Clark & Ramsey, 1990; Edwards & McMillan, 2015; O'Keeffe, 2013). Similarly in Canada, the largest dropout rate occurs in the first year (15% from College, 7% from University) and another 12% of first-year students transfer out after they learn early that they are not enrolled in a program or institution for which they are suited and switch to another (Childs et al., 2016). The cumulative leaving rates in Canada (drop-outs and transfer-outs) after the first year of study are thus 27% from college and 19% from university (Childs et al., 2016).

The change in the academic and social cultures between secondary school and higher education programs seems to be having profound effects on the early success of post-secondary students. Studies throughout the past few decades have confirmed that the majority of students who leave or fail higher education do so in their first year of study (Benn, 1995; Childs et al., 2016; Cook & Leckey, 1999; Finnie et al., 2014; Holt, 2005; Johnston, 1998; Wilcox et al., 2005). Of the college and university students in Canada who either drop out or transfer out, more than 50% do so in their first year of study (Childs et al., 2016). Many second and third-year withdrawals follow from challenges with academic and social integration that started in first year (Tinto, 1982). The inability to adapt to a new environment often causes students to perform at a lower academic level than anticipated (Tinto, 1982). Students who successfully navigate past their first year of study are more likely to persist to graduation (Tinto, 1982). Cook and Leckey's (1999) study on first year science students in the USA demonstrated that many students arrive at university underestimating the amount of work expected, the size of their classes, and the availability of their teachers. Many entrants to higher education are not adequately prepared for the learning and studying environments that they will confront; consequently, these students perform at a lower than expected academic level (Cook & Leckey, 1999). Wilcox et al. (2005) proclaim that the predominant reasons for student non-completion in the USA are a lack of academic preparedness for higher education and incompatibility between students and their coursework and institution.

The transition to higher education is accompanied with a number of challenges not only academically but also socio-culturally. Students often arrive at a new educational institution after leaving their home for the first time to come to an unfamiliar environment and lifestyle to which they are asked to adapt quickly while concurrently remaining focused on their academic studies (Morosanu et al., 2010). Students' transition can thus serve as a significant source of stress which, if inadequately addressed by the institution, is likely to negatively affect their psychological well-being and academic performance (Morosanu et al., 2010; Wilcox et al., 2005). Therefore, how students are transitioned into their first year of post-secondary education seems to be central to their rate of persistence and academic success. As previously highlighted, since the propensity of a number of student retention theories involves passing the responsibility onto students

to successfully integrate into their new academic environments, this literature review aims to incorporate the role of the institution and its agents in supporting student transition, integration, and success.

2.5.1 Individual characteristics and predictors of success.

Student retention theorists posit that individual characteristics of incoming students that relate to student success in higher education include: family background, past academic performance, and personality characteristics (Bean & Eaton, 2000; Bean & Metzner, 1985; Braxton & Hirschy, 2005; Pascarella et al., 1983; Sedlacek, 2004; Tinto, 1975, 1993). With regard to family background, students from families with higher socioeconomic status, who have college or university-educated parents, and who have parents or other family members who provide advice, praise, and encouragement, and express an interest in their children's academic experience maintain higher levels of persistence (Bourdieu & Passeron, 2011; Hossler et al., 2008; Lambert et al., 2004; Norvilitis & Reid, 2012; Statistics Canada, 2008, 2011; Tinto, 1975; Wexler & Pyle, 2012; Wintre et al., 2011). Analyzing Statistics Canada's Survey of Labour and Income Dynamics, Buddel (2014) reported that 88% of Canadian youth with university-educated parents attended higher education, compared with 68% whose parents were college educated and 52% whose parents had a high school diploma.

Research in dental hygiene has either analyzed student admissions records or has conducted surveys on students who were successful in being selected into a program in order to identify pre-admission variables that attempt to explain the variance in student performance. The definition of success in this literature has focused on GPA at graduation and performance on dental hygiene national licensing board exams. This predictors of student success literature in dental hygiene can be classified into one of two broad categories: cognitive (academic performance) or non-cognitive (personality or individual characteristics).

Cognitive ability or academic performance has generally been measured by evaluating applicants' previous academic achievement and scores on standardized tests, most notably incoming GPA (noting academic performance in previous education) and

the USA's Scholastic Aptitude Test (SAT). Although used globally for admission to many colleges and universities in the USA, the SAT is not required for post-secondary health professional programs in Canada. Research specifically in dental hygiene education using these predictor and success variables has produced mixed results. Dewald, Gutmann, and Solomon (2004) examined data from 168 dental hygiene students, including incoming GPA and graduating GPA to predict performance on the American National Dental Hygiene Board Exam (NDHBE). Dental hygiene graduates from Canadian institutions are required to write a similar exam called the National Dental Hygiene Certification Board Exam. Results from their study did not find incoming GPA to be a predictor of NDHBE performance; however, a strong correlation was found between graduating GPA and scores on the NDHBE. Alzahrani, Thomson, and Bauman's (2007) study on 235 dental hygiene student academic records found no statistically significant relationship between incoming and graduating GPA and NDHBE scores.

Conversely, Ward, Downey, Thompson, and Collins (2010) used academic information from 156 baccalaureate dental hygiene graduates to investigate if a relationship existed between incoming GPA and SAT scores (predictors) and GPA at graduation as well as performance on the NDHBE (success indicators). In their study, high correlations were found between both predicting variables and success indicators. In another study of 132 dental hygiene graduates, Bauchmoyer, Carr, Clutter, and Hoberty (2004) also reported that total incoming GPA (particularly in biology and chemistry) yielded a strong correlation to graduating GPA.

One of the significant limitations in these studies pertaining to predictors of success is the way in which *success* is defined. These aforementioned studies have defined success as graduating GPA or performance on national board exams. These parameters of success, therefore, do not include students who would have voluntarily withdrawn or been institutionally dismissed for academic failure from the program prior to graduation. Consequently, the implications of the results are limited since students who did leave the program prior to graduating would not have been captured in the success statistics of these studies. In addition, success after graduation and the licensing exams in the form of obtaining employment as well as career satisfaction and performance have

not been explored. The reason for an absence of research in this area may likely be due to inherent challenges in locating participants and defining performance criteria.

A common conviction in the health professions involves the belief that there are specific non-cognitive traits or personality characteristics that are significant predictors of academic success. These non-cognitive traits are then selected for within personal selection methods such as interviews within admission processes. Various non-cognitive indices have been used to attempt to correlate personality characteristics with post-secondary academic success. DeAngelis (2002) examined the predictive ability of the Problem Solving Inventory (PSI) with 28 second year dental hygiene students. This PSI assessed problem-solving confidence, approach-avoidance style to stress, and personal control. Results demonstrated that the PSI added slightly to the predictive capacity of incoming GPA, and the personal control scores in the PSI correlated most significantly with success, defined as graduating GPA (DeAngelis, 2002). Williams et al. (2003) investigated the extent to which 207 entering dental hygiene students' critical thinking skills, as measured by the California Critical Thinking Skills Test (CCTST), would predict reasoning ability and success in clinic. Their findings indicated that the CCTST explained a significant degree of variance in clinical performance and exceeded that predicted by incoming GPA.

Mitchell, Dunham, and Murphy (2006) studied the ability of a written candidate's questionnaire (CQ) to predict academic success on 250 students in a dental hygiene program. This CQ assessed the applicants' knowledge of the profession as well as the following characteristics: communication skills, ethical sensitivity, decision-making skills, and problem solving ability. Their study compared incoming GPA and CQ scores to the corresponding GPA at the end of the first year of the program. Results showed that those applicants with high CQ scores performed better academically in the dental hygiene program, suggesting that the assessment of non-cognitive attributes is an important component of the admissions process (Mitchell et al., 2006). Parker, Hogan, Eastabrook, Oke, and Wood (2006) investigated the relationship between emotional intelligence, as measured by an abbreviated version of the Emotional Quotient Inventory (EQI), and academic retention on a sample of 626 first-year students at a Canadian university. The

EQI assessed four dimensions associated with emotional intelligence: intra-personal abilities, interpersonal abilities, adaptability, and stress management abilities. Two groups were then identified for the study: those students who withdrew from the university prior to completing their first year of study and those students who remained at the university for a second year of study. The researchers concluded that students who persisted in their studies had significantly higher total EQI scores (Parker et al., 2006).

Bean and Eaton (2000) also proposed that students' individual characteristics influence persistence and success in higher education. They theorize that students who adopt an approach style to managing stress, who have a positive self-efficacy, and who have an internal locus of control or set of attributions are more likely to have higher levels of social and academic integration and goal and institutional commitment. As a result, these students are more likely to have intentions to persist and, thus, will persist (Bean & Eaton, 2000). Although there is general consensus in the literature that there are personality variables that influence success, there is little agreement about what these non-cognitive variables may be, the extent to which they predict success, and the reliability and validity of the methods used to assess them.

2.5.2 Transitioning to higher education: Academic and social integration.

The literature exploring students' experiences in their transition to higher education often links these experiences to the concepts of academic and social integration to describe the degree to which entering students gain meaningful membership to their institutions. Components of feeling integrated include individual psychological influences, academic preparedness, contact and relationships with faculty and staff, and forming friends and social networks, which are described in the research outlined below. Incorporated within the discussion below is research drawn from the dental education literature, nursing, engineering, social sciences, and general studies which demonstrate that these challenges that students experience transitioning to a new learning environment span numerous different disciplines and fields of study.

McMillan (2013) explored the extent to which the transition to higher education was experienced as emotional, through conducting focus group interviews with 28

students in a South African Faculty of Dentistry. Experiences that affected students' emotions involved with the transition and influenced successful integration included: independent learning, relationships with faculty members, family support, feeling alone or anonymous, balancing home responsibilities, finances, language, and developing a professional identity (McMillan, 2013). Students' engagement with a new learning environment is affected by a plethora of emotions and psychological issues; in addition to the excitement and exhilaration often felt with new experiences, feelings of loss, dislocation, alienation, and exclusion are inherent to students' entering a new university (Buddel, 2014; Christie, Tett, Cree, Hounsell, & McCune, 2008; McMillan, 2013).

Through interviewing first-year students, Christie et al. (2008) identified themes involved with the transition to university that included feelings of a cultural change and learning shock with a loss of a secure learning identity. Entering university students also experienced challenges in taking more responsibility for finding their own learning materials and methods, moving closer to the model of the independent learner while managing a large quantity of academic work (Christie et al., 2008; McMillan, 2013). Pidgeon and Andres (2005) also found similar challenges in the transition as students in their study acknowledged the heavier work load and shorter learning periods in the first year of university compared to high school. A sense of belonging and community membership was also found to be a challenge in the transition to first-year university (Christie et al., 2008). For example, large first year class sizes do not facilitate a sense of belonging and connection to one's academic community. Large classroom environments make engaging students difficult. Students have expressed that such environments provide limited opportunities to interact with the professor or other students (Pidgeon & Andres, 2005).

Numerous studies have also investigated primary reasons for attrition in higher education. Reasons for voluntary withdrawal have included: insufficient information about the program or course (the experience was not as expected), academic under-preparedness, lack of commitment or interest to a course or program, uncertainty about career choice, incompatibility between students, balancing study and work commitments, and stress/anxiety about independent study (Boylan, 2009; Finkelstein & Thom, 2014;

Noel, Levitz, & Saluri 1985; Scott et al., 2008; Wilcox et al., 2005). Preparedness for university life involves feeling compatible between entering students and their institutions. Compatibility involves a range of factors including pre-entry information such as previous educational experiences, teaching and learning as well as assessment practices and associated expectations, the perceived quality of relationships with faculty and staff, and establishing meaningful friendships with other students – all noted as challenges for entering first year students (Wilcox et al., 2005). First year students in Pidgeon and Andres' (2005) study articulated that the second semester in first year was easier than the first semester, and they attributed this experience to feeling more aware of their environment and associated academic expectations.

Through surveying Program Directors, Holt (2005) investigated the primary reasons for attrition across 25 dental hygiene associate degree programs in the United States and reported that academic and clinical difficulties, dissatisfaction with career choice, academic under-preparedness, and family or personal responsibilities impeded students' academic progression. However, Holt's findings did not provide details pertaining to what was meant by academic and clinical difficulties. Additionally, the extent to which Program Directors (the respondents) would know about the degree of students' family and personal responsibilities is questionable.

Other studies exploring student experiences and retention in the dental hygiene profession appear absent; however, there is a growing body of student retention literature in professional undergraduate nursing programs (Holt, 2005; Jeffreys, 2007; McMillan, 2013; Merkley, 2016; Wray, Aspland, & Barrett, 2014). In the United Kingdom, approximately 27% of nursing students do not complete their professional education, and those who do leave usually dropout in their first year of study as they are generally unprepared for university (Wray et al., 2014). Wray et al.'s (2014) study of baccalaureate nursing students found that the most significant factors contributing to students' decisions to leave their program were financial pressures, poor clinical experiences including a perceived lack of clinical support, and academic difficulties related to under-preparedness. Merkley's (2016) review of the literature on student nurse attrition primarily conducted in the USA concluded that grading policy inconsistencies between

nursing programs and high-stakes testing methods involving single high-stakes theoretical and clinical exams can be factors' in nursing students' failure to progress.

Numerous pieces of literature have found that academic performance and retention in higher education are positively correlated with academic involvement, positive relationships and frequency of contact with faculty and staff, an involvement with peer groups through extra-curricular social activities, and peer mentoring and support programs (Astin, 1984, 1993; Clark, Andrews, & Gorman, 2012; Holt, 2005; Scott et al., 2008; Terenzi & Wright, 1987; Wilcox, et al., 2005). These experiences promote a student's sense of belonging within the academy which is a key determinant of student persistence and success from both academic and social perspectives (Clark et al., 2012).

Through interviewing 25 former students at a Canadian university, Lehmann (2007) found that the primary reason for choosing to withdraw involved not fitting in and not being able to relate to other students. Lehmann (2007) used Bourdieu's concept of habitus to conclude that first-generation university students in his study experience a fundamental incongruence between the values of their working class habitus and their middle class goals; therefore, they had difficulty finding commonalities between them and their wealthier peers and becoming socially integrated on campus. Almost all of the former students in Lehmann's (2007) study who had university-educated parents were forced to leave the university due to academic failure. Lehmann (2007) writes: "This persistence to the bitter end is likely a reflection of habitus, parental pressures, and family resources" (p.101). In contrast, more than two-thirds of the first- generation students in Lehmann's (2007) study left voluntarily due to non-academic reasons. Feeling a lack of sense of belonging and fitting in had a profound influence on persistence of first-generation students (Lehmann, 2007).

In a study using *Canada's Youth in Transition Survey* data, lack of fit was identified as the most significant reason why students withdrew from their post-secondary education prior to graduation (Lambert et al., 2004). Similarly, O'Keeffe (2013) also concluded that a sense of belonging was the most critical factor influencing students'

withdrawal decisions from higher education. This sense of belonging can be fostered through positive student-faculty relationships, the encouragement of diversity and difference, and through students' perceptions that they feel cared for and supported by the institution (Braxton & Hirschy, 2005; O'Keeffe, 2013).

A rising body of research is giving further recognition to the social dimension to learning, placing emphasis on the positive influence of social networking to assist in the transition to higher education. Several authors have specifically explored the importance of peer relationships and participation in social networks related to academic support as key to reducing the stress involved in the transition process (Clark et al., 2012; Corwin & Cintron, 2011; Morosanu et al., 2010). Student friendships within these social networks developed at university become important sources of practical, academic, and social support (Morosanu et al., 2010). Corwin and Cintron (2011) investigated the composition of these social networks and identified that social networks were comprised mainly of roommates and friends established from prior education who are attending that same new institution. They concluded that those students who enter higher education without a pre-established network of friends on campus and who thus need to form new social networks are more challenged to find a sense of belonging and are at higher risk of leaving the institution.

Through conducting interviews with 12 students who withdrew from their first year of studies in applied social sciences in a United Kingdom university, Wilcox et al. (2005) articulated the significant role that social integration plays in students' persistence. In their study, *difficulty in establishing friendships* was identified as the primary reason why students voluntarily withdrew from first-year university. These students were seeking more social support which was defined as wanting attachment, nurturance, reassurance of worth, a sense of reliable alliance, and emotional and academic guidance (Wilcox et al., 2005).

More recently, Meyer and Marx's (2014) qualitative narrative study on four former first-year engineering students from a mid-sized university in the USA found that feeling like they did not socially belong and feeling unprepared for the rigours of the

program were the main reasons for withdrawing. Similarly, Mestan's (2016) qualitative exploration of 17 former first-year students from an Australian university's Bachelor of Arts program concluded that the primary reasons why students voluntarily withdrew were feeling a lack of purpose and career direction as well as difficulties with forming friendships.

At four universities across Canada, on-campus residence was seen as the place that helped facilitate the meeting of other students and viewed as the core social component for students living on-campus (Pidgeon & Andres, 2005). Commuter students tend to have greater difficulty forming new friendships on campus and have expressed greater challenges in feeling socially integrated with their school (Andres, Lukac, & Pidgeon, 2005; Pascarella et al., 1983; Pidgeon & Andres, 2005; Wilcox et al., 2005). Commuter students' transition into university life can be hindered by commuting time to campus, limited opportunity to meet and befriend other students between and during classes, and little contact with residential students (Andres et al., 2005).

Peer mentorship provides a more formal example of a social network. Findings from the National Survey of Student Engagement demonstrated that students who interact and learn from their senior peers engaged in deeper more meaningful learning activities, perceived a more supportive campus environment, and experienced more positive interactions with students, staff, and faculty (NSSE, 2013). Clark et al. (2012) analyzed the key determinants of peer mentoring in facilitating a successful transition into higher education. They examined the effects of short-term peer mentoring (first few weeks of a new student's first term at university) and subject-specific peer tutoring and found that these experiences reduced new students' anxiety involved with the transition, and new students reported feeling more committed to completing their studies as a result. These social networks and student-to-student interactions are vital in the establishment of support and the forming of friendships that positively affect one's self-worth, self-discovery, and growth which are positively associated with a number of academic outcomes including degree aspirations and college grade point average (Astin, 1993; Corwin & Cintron; 2011). Thus, student-to-student interactions and the development of

social networks seem to be key influencing factors enabling the transition into higher education and ultimately student retention.

2.5.3 Student engagement.

The notion of student engagement underpins student learning in relation to persistence, achievement, and retention (Astin, 1984; Kuh, 2009; McCormick, Kinzie, & Gonyea, 2013; Nelson, Quinn, Marrington, & Clarke, 2012; Tinto, 1975, 1993). The greatest impact on learning and personal development in higher education seems to be a function of institutional policies and practices that foster higher levels of student engagement across various types of curricular and extra-curricular educationally purposeful activities (Kuh, 2009). Student engagement refers to students' involvement or participation in a constellation of effective academic educational practices and campus social activities (McCormick et al., 2013). Baron and Corbin (2012) assert that efforts to engage students must not only occur within academic-related settings but also involve activities outside of the classroom to ensure students remain engaged in the complete university experience. Student engagement is a reliable indicator to increase persistence to graduation (Kuh, 2009). Engagement features two main components: firstly, the time and energy students devote to their studies and secondly, the institution's efforts to make its resources visible and available, to organize curriculum, and to attract students to participate in activities that lead to satisfying experiences and desired outcomes such as persistence, joy, learning, and graduation (Kuh, 2009). The effort of individual students combined with institutional activities largely determines students' ability to persist. If engaging students is the linchpin of student retention and success, then universities need to monitor and measure the extent of student engagement and intervene with students who demonstrate signs of disengagement particularly in the first year of studies.

Nelson et al. (2012) assert that there is no greater challenge facing higher education institutions than that of identifying, monitoring, and supporting students at risk of attrition. Based on their findings, researchers investigating issues of student attrition have recommended institutional strategies for student retention such as improving institutional commitment through campus involvement with extracurricular activities,

financial support, faculty and staff availability and interaction, frequent academic feedback to students, and peer mentorship and support programs (Holt, 2005; Johnston, 1998; Scott et al., 2008; Wadenya, Schwartz, Lopez, & Fonseca, 2003).

As research has shown, meaningful interactions with faculty in particular can positively impact students' experiences in higher education through influencing their cognitive growth, development, and ultimately retention (Kuh & Hu, 2001; NSSE, 2013; O'Keeffe, 2013; Pascarella & Terenzini, 2005). Since the early works by Pascarella and Terenzini (1979), a positive correlation has been demonstrated between student-faculty contact time and students' persistence decisions. Frequent and positive interactions between undergraduate students and their professors are correlated with favourable educational experiences as well as greater personal and academic development regardless of where this contact may occur (Kim & Sax, 2007). In particular, informal non-classroom student-faculty contact time in higher education has been investigated and associated with student satisfaction, educational aspiration level, and persistence (Iverson, Pascarella, & Terenzini, 1984; O'Keeffe, 2013). When students feel connected and maintain consistent ongoing relationships with faculty and staff, they are more likely to feel engaged in school (Wexler & Pyle, 2012). The relationship between students and a key figure such as a faculty member, support staff, or student mentor within a university can help ensure that students do not withdraw prematurely. The subsequent motivation arising from these positive relationships between students and faculty is correlated with increased persistence (Komarraju, Musulkin, & Bhattacharaya, 2010; Lewis & Miller, 2013; O'Keeffe, 2013).

Senior students are significantly more likely to seek out and have meaningful interactions with faculty than are entering first-year students (NSSE, 2013). In addition, students attending small institutions, defined as under 1000 students, are more likely to interact with faculty compared to students attending larger institutions (NSSE, 2013). Higher education institutions and their faculty and staff have an obligation to provide the appropriate milieu to support students to engage academically and socially with their school (Nelson et al., 2012). Faculty members who know their students' names and respond quickly to student inquiries are deemed to be more approachable and can help

their students feel more supported (Pidgeon & Andres, 2005). Support can be facilitated by mindful practice in curriculum design, awareness of the need by faculty and staff to reach out and engage students (particularly first-year students), and an institutional governance infrastructure which should include a focus on first-year experience or engagement policies (Nelson et al., 2012).

The literature on effective pedagogical practices also links teaching and learning to student engagement and persistence. Teaching practices such as active learning through interactive discussions, peer teaching, providing prompt feedback, respecting diversity and diverse ways of learning, making oneself available for students, and student-faculty contact inside and outside of the classroom have all been identified as contributing positively to students' learning experiences and, consequently, their levels of engagement with the institution (Chickering & Gamson, 1987; McCormick et al., 2013; Pascarella & Terenzini, 2005).

Literature from the science, technology, engineering, and mathematics (STEM) fields has demonstrated that instructors who use interactive engaging teaching methods that involve active learning through providing students with opportunities to think, respond, and interact in the classroom have a positive impact on the retention of students in STEM disciplines (Watkins & Mazur, 2013; Freeman et al., 2014). Cox's (2015) qualitative research conducted inside math classrooms highlights that in addition to the instructional approach used to engage students, instructors' methods of assessment can also drastically affect students' academic outcomes. Merkley's (2016) review of the nursing literature on student retention asserts that accountability for student success is a partnership between students and instructors. Faculty members have a responsibility to offer didactic instruction and clinical experiences that engage and adequately prepare nursing students for professional practice (Merkley, 2016).

In order to effectively engage students in the classroom, Barefoot (2004) recommends small class sizes (between 15-20 students) to facilitate a more personal and interactive environment. Establishing learning communities where the same small group of students attend the same classes, particularly at commuter institutions, can also

facilitate a sense of engagement (Barefoot, 2004) and can help address the challenges experienced in large classes as noted earlier by Pidgeon and Andres (2005) regarding interacting with the professor and other students in the classroom setting.

Pike, Kuh, and Gonyea (2003) suggest that although institutional characteristics may influence student learning and development, further research needs to be conducted to confirm this link empirically. Higher education institutions may differ in terms of students' learning outcomes, but they certainly also differ in terms of students' entering characteristics. When researchers consider differences in students' backgrounds, the effects of institutional characteristics on student learning and intellectual development tend to be inconsistent (Pike et al., 2003). Kuh and Hu (2001) examined the relationships between institutional mission and students' reports of involvement and academic performance, controlling for differences in students' backgrounds. They found that differences in involvement and performance by institutional type were largely due to differences in students' background characteristics. Students from the White majority culture, higher socioeconomic status, higher parental level of education, higher academic preparation, higher educational aspirations, and students who were enrolled in senior years of a program engaged more with faculty (Kuh & Hu, 2001).

Similar to Kuh and Hu (2001), Pike et al.'s questionnaire-based research (2003), which was informed by Astin's (1984) I-E-O model, found that females, majority students, and students with educational aspirations beyond a baccalaureate degree tended to be more engaged and expressed more positive perceptions of their post-secondary education. These students reported greater gains in learning and intellectual development. Being a first-generation student was negatively related to levels of social involvement, integration, and academic outcome (NSSE, 2013; Pike et al., 2003). Buddel (2014) qualitatively explored the experiences of four first-generation university students attending an Ontario university through interviews and found that being first-generation served as motivation to succeed and earn the degree in order to improve their life circumstances. Using a qualitative approach may have resulted in these differing findings. This result could also be unique to Buddel's (2014) four participants who were from immigrant families; Buddell (2014) explains that the four participants were considered to

be first generation students based on the university's definition but two of the participants' parents did complete university outside of Canada.

First-year students in general also reported lower levels of involvement compared to their senior colleagues due to feelings of uncertainty and discomfort in a new environment (Buddel, 2014; Lehmann, 2007; Pike et al., 2003). These findings highlight the need for faculty members, student affairs professionals, and other administrators to challenge their own assumptions about first-year students and to be as intentional as possible about creating opportunities for entering students who may lack knowledge and experience with post-secondary culture. These institutional agents can take responsibility to connect first-year students with their peers and the faculty through planned curricular and extra-curricular activities.

2.5.4 Institutional policies and practices.

Bensimon (2007) proclaimed that retention literature has relied too heavily on theories that link student attrition to the characteristics and behaviours of students, consequently minimizing the role and influence of institutional policies and practices. Responsibility lies not only with students to take ownership over making their post-secondary experiences relevant but also with the institution to provide opportunities for student involvement and to facilitate meaningful educational experiences (Astin, 1984; Braxton & Hirschy, 2005; Deil-Amen 2011b; Pascarella & Terenzini, 2005).

Hossler et al. (2008) investigated the effects of institutional practices on retention, exploring the linkages between campus policies and student retention. They identified institutional practices, termed *policy levers*, which helped facilitate student persistence. These policy levers, although quite general, included: using recruitment practices that support the fulfillment of students' social and academic expectations, reducing and addressing students' experiences of discrimination on campus, implementing equitable academic regulations, guiding students to available resources such as academic advising and personal counseling, implementing active learning strategies in the classroom, providing workshops on stress management, advocating for student interactions during

orientation and residential life practices, and providing financial aid to those in need (Hossler et al., 2008).

Research shows that students whose family members express an interest in their children's academic experience maintain higher levels of persistence (Hossler et al., 2008; Norvilitis & Reid, 2012; Statistics Canada, 2008; Tinto, 1975; Wexler & Pyle, 2012; Wintre et al., 2011). Thus, Hossler et al. (2008) suggested that institutions could help support student families better understand institutional policies, potential experiences students may have while enrolled (expectations), and support services available through conducting a family orientation program for interested family members and entering students to aid in the transition to higher education.

O'Keeffe (2013) argues that institutions have a responsibility to create a caring, supportive, and welcoming environment for entering students, deemed as critical in fostering a sense of belonging, through increasing opportunities for student-faculty interactions, developing well-resourced student affairs and counseling departments, and encouraging diversity. If, as some research demonstrates, individual involvement is the central determinant to student persistence, then it is important for educational institutions to create opportunities for academic and social experiences to encourage student engagement (McCormick et al., 2013; Parcarella & Terenzini, 2005). Johnston (1998) also supports institutional policy focused on student engagement to support transition. Her recommendations for policy included: the promotion of student retention as a first order institution or faculty-wide priority, a minimum attendance policy for all first-year students, and institutional support in the form of a pastoral care model where more visibility and personal attention from faculty and staff is viewed as central in the provision of academic support. Transition pedagogy is based on students' engagement in learning and can be facilitated by organized academic-student partnerships (Nelson et al., 2012).

Nelson et al.'s (2012) study outlined the Student Success Program (SSP) at the Queensland University of Technology as an example of good practice by a higher education institution in efforts to support commencing students. The SSP is an

intervention designed to identify students at risk of disengaging before they fail or withdraw from university. It aims to enhance students' experience and to decrease attrition in the first year. The SSP creates bridges for at-risk students between their classroom experiences and the support services available. Cohort memberships (social networks/friends), attendance, and GPA are used to identify at-risk students, after which highly proactive individualized contact by telephone is attempted by Student Success Advisors mostly comprised of involved faculty and staff. The information shared over the telephone included access to a range of cohort- and discipline-specific resources. Those students who were identified as *at-risk* and who were successfully contacted by phone for additional support (versus those who were unable to be contacted) resulted in higher levels of persistence (89% versus 66%) and higher academic scores in the final term of first year. These contacted students felt cared for, emotionally engaged with the institution, and valued the information shared (Nelson et al., 2012).

Relatively few assessments of campus retention initiatives, such as the one described above by Nelson et al. (2012), have been researched and published to help guide policy and program makers in the development and implementation of support programs. Campus administrators acknowledge that while they have ongoing retention initiatives, they have little evidence regarding its effectiveness (Hossler et al., 2008). Hossler et al. (2008) proclaim that few assessments of institutional or program-specific retention initiatives have been conducted. Pascarella and Terenzini (2005) state that institutions need to monitor and evaluate institutional retention efforts to investigate the impact of these efforts on student success rates.

Earlier in this chapter, several critiques of traditional theories were presented that articulated some of the challenges around the requirement for students to integrate to the values of the institution. This assimilationist aspect of traditional student integration and retention theories is contentious particularly when students of minority backgrounds are forced to integrate into a culture or value system that is not their own. The expectation of students to relinquish their own identity in order to integrate successfully with a dominant and normative institutional system places an unnecessary burden on entering students (Deil-Amen, 2011a; Elkins et al, 2000; Pidgeon, 2008; Tierney, 1992).

Approximately 50% of students in UBC's BSc program are visible minorities comprised mostly of several Asian subgroups. In addition, seven of the 10 participants in my research study identified as a visible minority. As a result, a brief introduction into a critical race theory perspective to education and retention and some of the related empirical research is warranted. This discussion may assist with appreciating how such traditional student retention theories legitimize one culture over another and may capture the additional challenges experienced by racialized minority student populations.

2.6 A Critical Race Theory Perspective to Education

Critical theory reflects theoretical foundations that promote the deconstruction and critique of institutions, organizations, laws, policies, definitions, and practices to identify power inequities (Evans et al., 2010). Dominant perspectives, which solidify over time, become normative and regarded as the truth (Pease, 2010). Critical race theory (CRT) places race at the centre of the discourse on power relations and challenges conventional accounts of educational and other institutions and the social process that occur within them. Tenets of CRT include a belief that the current understanding of race privileges White people and marginalizes people of colour (Evans et al., 2010; Yosso, 2005). CRT recognizes that racism and the associated power structures are engrained in the fabric of society (Brayboy, 2005; Pease, 2010; Powers, 2007; Solorzano, Ceja, & Yosso, 2000; Verjee, 2013). CRT values experiential knowledge to inform thinking and research (Brayboy, 2005). CRT in education posits that racism is endemic and has become so deeply entrenched that it is often invisible (Brayboy, 2005). Yosso (2005) emphasizes that CRT has evolved from the earlier tendency to explore racism from a White/Black binary lens. By offering perspectives beyond a binary approach, peoples of colour from African, Native, Asian, Latino, and other minority communities are better able to recount their unique experiences of racism (Yosso, 2005). For example, emerging from CRT, Tribal CRT is rooted in the histories of Indigenous populations and emphasizes that colonization is endemic in society while acknowledging the role played by racism (Brayboy, 2005).

The challenge facing an anti-racism approach to education is how to move away from the fixed concept of self/other and either/or dichotomies in discourses and educational approaches in favour of a view of the two constructs as intersecting (Dei, 2003). An objective of critical anti-racism education is to illuminate how institutions, organized by differential relations of power, produce cultural differences and subsequent subordination within a racialized society (Dei, 2003). Dominant views and curricula in education often lead to exclusion and oppression. The normativity of the dominant culture of an institution and its associated privilege provides a pathway to the process of *othering*, which is a method of portraying difference as deviant and alien to that which is normal (Pease, 2010). The dominant culture of post-secondary institutions is premised on ideologies of particular forms of *Whiteness*, which often function to marginalize and silence racialized students (Verjee, 2013). For example, institutions may construct ethnic minority students and their cultures as deviations when these students resist assimilation into the dominant culture and curriculum (Dei, 2003). In her discussion of community cultural wealth, Yosso (2005) critiques the assumption that students of colour enter classrooms with cultural deficiencies. She challenges schools to recognize the multiple strengths that communities of colour bring to institutions that can help identify and address social and racial injustices in order to transform the process of schooling. How differences are identified and acted upon are fundamental issues in the critical understanding of racist practices in education, the outcomes of which can have devastatingly negative consequences for minority students in higher education.

2.6.1 Retention of racialized minority student populations.

As stated, approximately half of the students in UBC's BSc program are visible minorities, and most participants in my research study also identified as such. Over the years, traditional student retention models have been challenged for their limited applicability to minority students. As previously discussed, of particular criticism is the assumption in sociological theories such as Tinto's (1975) that students must dissociate from their home cultures and assimilate to the values and practices of the dominant culture within the institution in order to integrate successfully (Deil-Amen, 2011a; Museus & Quayle, 2009). Expecting students to sever ties with their culture places an

unnecessary burden on college students of minority background to assimilate to their campus environments (Deil-Amen, 2011a). In this assimilation process, one culture is inevitably legitimized over another (Melguizo, 2011). Rather, educational institutions should take responsibility to facilitate these students' socialization (Tierney, 1992). Tierney (1992) emphasizes the importance of focusing on the affirmation of one's cultural identity and calls for programs and educators to engage students' racial backgrounds in a positive productive manner that involves the development of more inclusive and relevant pedagogies and learning initiatives. Many students experience the process of *biculturation* whereby students live simultaneous lives in two cultures or two realities: their own and that of the institution (Carter, 2006). This experience of dissonance often leads to alienation, exclusion, racial discrimination, and feelings of fear and anxiety with being only one of a few minority students in a particular program (Carter, 2006).

Students of any race who are in the minority on campus have a higher probability of leaving post-secondary education prior to graduation compared to students who belong to the racial majority (Carter, 2006; Hossler et al., 2008). In addition, minority students typically take longer to complete an undergraduate degree compared to majority students (Carter, 2006). An analysis of the data available from the United States Department of Education's National Center for Education Statistics (2009) clearly illustrates that graduation rates are consistently lower among racial and ethnic minority students compared to White students. For example, the graduation rates for students who complete a baccalaureate degree within six years after starting at degree-granting institutions among White, Hispanic, and Black students were approximately 59%, 47%, and 39% respectively (NCES, 2009). Only 21% of Black students completed a degree within four years, almost 50% less than White students over the same period of time, thus illustrating the difference in patterns of post-secondary persistence based on race (NCES, 2009). In the USA, only 11% of Hispanic adults between the ages of 25 and 29 have earned a bachelor's degree, compared with 17% of Blacks, 33% of Whites, and 27% of the total American population in that same age cohort (Aud et al., 2010). In addition, Native Americans in the USA represent less than 1% of the total undergraduate student population (Strayhorn, 2015). Citing the *Chronicle of Higher Education Almanac 2005-*

2006, Guillory and Wolverton (2008) reported that Native American students earned approximately 0.7% of all associate and baccalaureate degrees earned that year accompanied with retention rates as low as 15%.

A report by Statistics Canada (2011) on college and university participation rates found notably lower rates of participation in Canadian post-secondary education from visible minorities particularly Aboriginal youth. The Canadian University Survey Consortium's (CUSC) 2015 Graduating University Student Survey incorporated 36 universities and over 18,000 university students across Canada. This CUSC survey found that most graduating Canadian university students are White - only 32% of graduating students identified as visible minorities and only 4% self-identified as being Aboriginal. The most common visible minority groups included Chinese (9%), South Asian (6%), and Black (4%) (CUSC, 2015).

Traditional student integration theorists may suggest that these racialized minority groups have poorly engaged with their institutions and programs. For minority students at predominantly White institutions, attempts to engage the social and academic environments may present additional challenges. Minority students in predominantly White campuses contend with many aspects of *Whiteness*, where they experience primarily western-based curricula and have minimal contact with faculty of similar ethnicity and, consequently, many of these students become isolated (Quaye, Tambascia, & Talsesh, 2009).

Curricular content does not always reflect the diversity of the student population. Quaye et al. (2009) assert that issues regarding the cultures of ethnic minority students are often absent from assigned readings and classroom discussions. They assert that the message within such curricula leads students to perceive or interpret *Whiteness* or Eurocentric customs or thoughts as normal and that of other beliefs from different cultures are not as valued. In this way, the goal of the dominant society has been to change or colonize minority populations to be more like those who hold power in the dominant society (Brayboy, 2005). Western-based curriculum may invalidate the

experiences of minority students in these situations. As a result, these students become disengaged from their learning and may ultimately withdraw from their institution.

According to Tinto's (1975) student dropout model and subsequent sociological models that it informed, student interaction with faculty promotes academic integration and facilitates engagement with the institution. However, a CRT lens provides an appreciation that students of colour experience difficulties assimilating and forming close meaningful relationships with White faculty (Powers, 2007). Literature clearly reveals that students of colour feel isolated and alienated on predominantly White campuses (Janes, 1997; Palmer, Maramba, & Dancy, 2011; Solorzano et al., 2000; Verjee, 2013). Students of colour in American and Canadian post-secondary institutions have reported feelings of invisibility within the classroom settings, being ignored in class, and experiencing stereotypes in their Eurocentric or westernized course curriculum (Palmer, Maramba et al., 2011; Solorzano et al., 2000; Verjee, 2013). Students in these studies provided examples of racial microaggressions in faculty-student as well as peer interactions involving demeaning verbal and non-verbal communication and instances when White faculty and classmates maintained low expectations of them, contributing to their feelings of subordination, self-doubt, frustration, and isolation. Solorzano et al. (2000) reported that racial microaggressions had negatively affected these students' academic performance in overt ways including forcing some to leave the university.

Cox's (2016) qualitative inquiry of low-income Black and Latino students in the USA highlighted the challenges with assuming that disadvantaged populations have a *choice* in college matriculation and persistence. She argues that traditional college-choice or retention models describe the pathways and experiences of more advantaged student populations thereby attributing disappointing outcomes of underrepresented students to these students' deficiencies. Transitory housing, complicated guardian arrangements, and other socioeconomic influences compelled the students in her study to subordinate their college aspirations to these more urgent and lifestyle related realities (Cox, 2016).

Support for students of colour includes role models of colour, knowledge sharing from students of similar ethnic groups, and relationships with staff of colour (Palmer et al., 2011). The finding that only 12 percent of ethnic minority faculty have earned full professorship in the USA illustrates the frustration of ethnic minority students to find same race-ethnic faculty members with whom to engage and to regard as mentors (Quaye et al., 2009). In addition to mentorship, ethnic minority faculty members can offer diverse viewpoints on teaching and learning, create safe and inclusive campus environments, and support minority students who may feel disconnected and isolated in predominantly White institutions (Quaye et al., 2009). Emerging perspectives of minority student success suggest that a symbiotic relationship between pre-college cultures and campus cultures positively affect the persistence of racial minority students (Museus & Quaye, 2009). That is, cultural dissonance is inversely related to minority students' persistence (Museus & Quaye, 2009). Therefore, senior administrators should actively promote the use of diverse and inclusive curricula and ensure representation amongst faculty and staff in order to engage minority students in the learning process and with their educational institutions in order to facilitate their students' success in higher education.

2.6.2 The model minority stereotype.

Demographically, approximately 50% of the student body in the BSc program at UBC is Asian, comprised mostly of Chinese and Korean subgroups. An additional challenge that this population of students may experience is related to the model minority stereotype (MMS) of achievement orientation. The MMS involves racial profiling based on the perception from the majority population that Asians are intelligent, highly motivated, self-sufficient, hard-working overachievers who stem from affluent families and have overcome all barriers to racial discrimination in society and higher education (Li, 2005; Suzuki, 2002). The stereotype labels Asian Americans as the model of success, more successful than other racial minority groups, due to their ostensibly stronger values on hard work and achievement (Yoo, Miller, & Yip, 2015).

Part of the reason for the emergence of the MMS stemmed from the analysis of earlier research in the 1970s which demonstrated Asian American families had a higher

median annual income compared to other U.S. families (Suzuki, 2002). This simple analysis formed the basis of the belief that Asian Americans appeared to be quite successful, and this message was propagated by the media (Suzuki, 2002). However, subsequent in-depth analysis of this research revealed that, in reality, the median family income of Asian Americans was higher because Asian families had more individual earners contributing to each family or household (Suzuki, 2002).

Model minority images are also based on Asian students' high mathematics and SAT scores, consistently performing higher than other minority groups as well as White students (Li, 2005). Approximately 60% of Asians in the USA aged 25 to 29 have a bachelor's degree, also more than other minority groups and Whites (Aud et al., 2010). In addition, since the 1990s in the United States and Canada, Asia Pacific has become the leading source of immigrants, with China being the number one source country – emigration from presumably wealthy countries may contribute to the myth that Asians are economically more prosperous than other North Americans (Li, 2005; Suzuki, 2002). However, since the 1980s, Whites have consistently earned a higher individual income than any of the approximately thirty Asian American subgroups for the same level of education. In addition, the poverty rate for Asian Americans is higher than that for Whites (Aud et al., 2010; Suzuki, 2002). There is greater disparity between Whites and Asians than first thought regarding economical, educational, and occupational achievement (Li, 2005).

The stereotyping of Asian Americans in higher education has had invidious consequences. A CRT framework provides a situational context for examining the impact of race on students' self-image and interactions with others which is fundamental to understanding Asian students' educational experiences (Liu, 2009). Extending the construct of CRT to further racial specificity, Chang (1993) developed a framework for Asian CRT in which he posits that the magnification of racial hierarchy through the MMS clearly demonstrates the necessity of foregrounding race and racism when examining issues that impact Asian Americans.

The MMS places Asian students in a precarious position, as educational institutions may assume that these students do not have any problems and thus do not require its support systems. The MMS misleads policy makers to overlook issues pertaining to Asian students and their needed services and contributes to a subsequent lack of intervention (Li, 2005; Wexler & Pyle, 2012). Asian students' experiences and support needs may be infrequently understood by those policy makers or institutional agents who belong to the dominant culture. However, this population of students continues to experience high levels of stress and isolation. There are often unrealistically high expectations set by these students' parents, peers, and professors. Their academic performance can often suffer as a result of these great pressures, forcing some to withdraw from the institution or be dismissed for academic failure (Suzuki, 2002).

Seeking academic or institutional support may pose an additional challenge, as Asian cultural values have significant influence over the shaping of attitudes and behaviours related to seeking help (Kim & Omizo, 2003; Shea & Yeh, 2008). Asian cultures tend to emphasize emotional restraint, avoidance of shame, and saving face which may oppose western practices in counseling such as self-disclosure and emotional expressiveness (Shea & Yeh, 2009; Zane & Yeh, 2002). Familial values can inform an expectation for Asian Americans to manage their problems independently or within the confines of their family in order to avoid bringing disgrace to the family that seeking outside professional support may be perceived to bring (Zane & Yeh, 2002).

According to the United States Department of Education, the graduation rate for Asian students in baccalaureate programs is approximately 59% within a five year period compared to 51% of the total population examined (Asian, White, Black, Hispanic) in the same period (NCES, 2009). Each year, more Asian students report experiencing difficulty learning English and performing well academically (Li, 2005). Studies on Asian students' experiences in higher education illustrate that increasingly more Asian students are feeling pressure to excel academically while being misunderstood, marginalized, and disconnected from their faculty and campus (Lagdameo, Lee, & Nguyen, 2002; Suzuki, 2002; Wexler & Pyle, 2012; Yoo et al., 2015). These psychological challenges have been exacerbated by racial micro-aggressions or harassment based on resentment by other

students toward the perceived achievement orientation of Asian students (Li, 2005; Suzuki, 2002). Recent empirical studies have explored the extent to which Asian Americans themselves have internalized the MMS and its potential harm to their mental health (Wong & Halgin, 2006; Yoo, Burrola, & Steger, 2010; Yoo et al., 2015). Similar to other forms of racial stereotyping, these studies demonstrated that the MMS for Asian Americans can be a significant source of chronic stress accompanied with the pressures and burden to succeed.

In the twenty-first century, the MMS is still prevalent, becoming an unconscious image embedded in the minds of majority students subliminally influencing their perceptions and behaviours (Suzuki, 2002). Suzuki (2002) suggests the following recommendations to student affairs professionals to help address the challenges faced by Asian American students: conduct workshops for students, faculty, and administrators on diversity, including the stereotyping of Asian American students and its deleterious effects; establish a campus wide committee to monitor signs of racial harassment and students in need of support; and provide assistance to Asian students to strengthen their English communication skills. Suzuki (2002) and Quaye et al., (2009) also emphasize the importance of supporting efforts to diversify faculty and staff by recruiting Asians for such positions thus ensuring representation.

2.7 Motivating Reasons for Pursuing Dental Hygiene Degree Education

Before this dissertation delves into the research protocol, this section introduces the literature that is unique to pursuing dental hygiene baccalaureate education. A diploma remains the entry-to-practice credential for dental hygiene in Canada. Little is known about the motivating influences for pursuing dental hygiene degree education. The Canadian Dental Hygienists Association (CDHA) states that furthering one's education in dental hygiene depends on an individual's goals, aptitudes, and interests (CDHA, 2016). Education beyond the diploma level would be a natural next step for dental hygienists who desire to enhance their professional expertise and academic qualifications, to increase their knowledge and abilities, to take a leadership role in the community, and to explore different career opportunities (CDHA, 2016).

There is a scarcity of literature regarding dental hygienists' motivation for pursuing dental hygiene baccalaureate education. The few studies that do exist have focused on post-diploma dental hygiene degree-completion education (Cameron & Fales, 1988; Imai & Craig, 2005; Kanji, Sunell, Boschma, Imai, & Craig, 2010; Waring, 1991). That is, these studies investigated reasons why practicing dental hygienists who had already earned a diploma returned to university to complete their dental hygiene degree. Most of this research has been conducted with quantitative methodologies using Likert scales and closed-ended surveys (Cameron & Fales, 1988; Imai & Craig, 2005; Waring, 1991). There is an absence of research which has explored reasons for pursuing a four-year entry-to-practice dental hygiene baccalaureate degree (in which students have no prior dental hygiene education) such as the BDS program at UBC.

Imai and Craig's (2005) mixed-methods survey on 27 dental hygienists who had graduated from the University of British Columbia's dental hygiene degree-completion program identified the following motivating reasons that diploma dental hygienists may have for pursuing a degree: personal satisfaction (92.6%), increasing knowledge (85.2%), advancing career (55.6%), the status afforded by the degree (37.0%), and for graduate school entrance requirements (7.4%). Waring's (1991) survey of 189 dental hygienists in the USA also found that personal satisfaction (97.6%), increasing knowledge and skill (95.1%), career advancement (80.5%), and status of a degree (75.6%) were the primary motivators for dental hygienists who had earned an associate degree to continue and pursue their dental hygiene baccalaureate degree. A qualitative phenomenological study by Kanji et al. (2010) explored reasons why 19 dental hygienists who first earned a diploma returned to university to earn their dental hygiene degree in Canada. Motivating influences shared by participants included expanding career opportunities in dental hygiene, personal development and a desire for knowledge, remaining competitive, status and recognition, access to graduate education, and third-person influences involving instructors from dental hygiene diploma programs, family, and friends (Kanji et al., 2010).

Several American and Canadian studies that have investigated career outcomes of earning a dental hygiene degree clearly demonstrate that baccalaureate prepared dental

hygienists are more successful in securing employment outside of the clinical practice setting (Craig, McCloy, & Boyd, 1999; Pohlak, 1996; Rowe, Massoumi, Hyde, & Weintraub, 2008). Stemming from this research, such employment was found to include positions in education, administration, research, and public health. Position papers and trends suggest that to work in more nontraditional practice settings and with patients exhibiting more complex chronic illness with comorbidities, dental hygienists should have at least a baccalaureate degree to be prepared to embrace expanded interprofessional roles and to deliver effective care for diverse populations (CDHA, 2009; Stolberg, 2016). Exploring student motivations for pursuing advanced dental hygiene education such as the BDS is relevant since student retention literature has associated students' educational and career aspirations with engagement and persistence (Braxton & Hirschy, 2005; Kuh & Hu, 2001; Pike et al., 2003).

2.8 Challenges and Gaps in the Literature

A challenge with the student retention research is the focus on investigating students who are successful in progressing to their senior years of study in their respective undergraduate programs across various disciplines. Predominantly, researchers have surveyed, interviewed, and conducted focus groups asking successfully promoted students what social and academic factors facilitated their academic progression (Clark et al., 2012; McMillan, 2013; Nelson et al., 2012; Palmer et al., 2011; Solorzano et al., 2000; Tobbell, O'Donnell, & Zammit, 2010; Verjee, 2013; Wexler & Pyle, 2012; Wintre et al., 2011; Wray et al., 2014; Yoo et al., 2015). There is a paucity of research that has recruited former students who are no longer enrolled in their initial program of study to explore their lived experiences (Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; Scott et al., 2008; Wilcox et al., 2005). Former students can provide unique insights into their academic, social, and personal lived experiences as well as influencing factors that contributed to their dismissal or decision to withdraw. This information may more accurately identify students' specific needs and barriers to success in their transition to and persistence through higher education and may inform faculty and administrators about the designing of new orientation programs, the development of new first-year

policies, and the creation of healthier student-centred environments that may support entering first-year students more effectively.

Geographically, most of the student retention research in the English language stems from the USA and the United Kingdom; therefore, there is an apparent need to conduct similar research within a Canadian context. In addition, the professional undergraduate student population, such as dental hygiene and other allied health professions, has been under-studied. Only a few studies have explored student retention in professional health programs (Holt, 2005; Jeffreys, 2007; McMillan, 2013; Wray et al., 2014). Although there is a growing body of student retention research within the nursing literature (Dapremont, 2013; Merkley, 2016), related research remains scarce in the dental professions.

Another challenge with some of the retention research is the failure to distinguish attrition that results from voluntarily withdrawal as opposed to institutional dismissal. This challenge may lead to contradictory findings and, more importantly, may mislead administrators in creating strategies and policies to support specific student populations. Those researchers who do explicitly identify the cohort of students they are studying have focused on students who voluntarily withdraw from higher education (Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; Scott et al., 2008; Wilcox et al., 2005). Therefore, there remains an apparent absence of research that has exclusively explored attrition that results from institutional or academic dismissal.

2.9 Theoretical Framework for this Study

Braxton and Hirschy (2005)'s theory of college student departure that was highlighted earlier informs my research. The evolution of student retention and departure theories presented in this chapter has illustrated that Tinto's (1975) interactionist theory focusing on integration has shaped preliminary discussions regarding why students may leave higher education. However, since its formulation, scholars and Tinto himself recognized that the original theory required review. After reviewing theories and empirical research that tested propositions stemming from Tinto's (1975) work, Braxton and Hirschy (2005) offered revisions to Tinto's (1975) theory. Three features of these

revisions in particular deem Braxton and Hirschy's (2005) departure theory appropriate for this study.

Firstly, their model recognizes the interplay between sociological, psychological, and organizational factors that may influence student persistence. Secondly, their model acknowledges the potential differences in experiences between residential and commuter students. Thirdly, their model highlights the importance of the role of the institution and its agents in supporting student success. Both the effort of individual students as well as the institutional efforts to support students can influence students' likelihood to persist, and Braxton and Hirschy's (2005) model captures this symbiotic partnership.

As described earlier in this chapter, their model also highlights the significance of a unique organizational construct they termed to be students' perceptions of institutional commitment to student welfare. Students who perceive that faculty care about student success and perceive that programs and resources are in place to support them are more likely to affiliate with members of the institution (Braxton & Hirschy, 2005). This framework can assist my understanding of how first year BSc students perceive the faculty and institutional resources and whether they regard the institution and its agents as vehicles to promote their well-being and success. Since I am not only a faculty member who works closely with entering students but also the Director of the BSc program, I feel that it is my obligation to better understand students' experiences since I am in a formal leadership position and well positioned to facilitate meaningful change. Braxton and Hirschy's (2005) departure model thus provides a valuable lens with which to approach an in-depth inquiry that acknowledges the multifaceted influences that contribute to entering students' experiences that may lead to their departure from higher education.

2.10 Summary

This chapter has presented several prominent student retention and departure theories that have demonstrated the evolution of such frameworks over time. The increasing recognition of diverse student populations as well as the various sociological, psychological, economic, and organizational factors that can influence student persistence

has been central to this evolutionary progression. Informed by many of these theories, this chapter has also highlighted the empirical research pertaining to predictors of success, transitioning to higher education, social and academic integration, student engagement, and institutional policies and practices. The challenges within this literature provide impetus for this research which aims to address some of the identified research gaps, particularly the desire to better understand the student experience from those students who did not progress beyond their first year of study. Using Braxton and Hirschy's (2005) theory of college student departure, this research attempts to capture these experiences with a lens that appreciates the multifaceted influences that impact first-year BSc students at UBC. The next chapter provides detailed information regarding the research design involved in this exploration of former first-year BSc students.

Chapter 3. Methodology

3.1 Introduction

This chapter provides a comprehensive description of the methodological perspectives and methods used in this study. The chapter begins with insight into my epistemological perspective and positioning of self which ultimately informed the research question and design. Then, I discuss how similar research questions have been empirically investigated which, to a large degree, informed how the research was conducted, as I desired to make a unique contribution to the literature in this field. This chapter introduces the selected method to investigate the research questions and discusses the tenets of this approach. Next, the chapter presents the detailed research plan including the research purpose and questions, sampling and recruitment strategies, data collection, data analysis, challenges and limitations to the chosen approach, strategies to enhance rigour to minimize threats to trustworthiness, and ethical considerations.

3.2 Researcher Subjectivity and Positioning of Self

My personal perspective or the interpretive framework with which I identify as an educator and researcher resonates most closely with a constructivist paradigm and subjectivist epistemology. Constructivism involves an appreciation for multiple, open-ended, interpretative, and contextualized perspectives towards reality (Creswell & Miller, 2000). I believe that learners co-construct their own knowledge and reality based on their individual lived experiences, interactions with family members and peers, and with the context of their environment. Learners construct their own meanings and understandings within the academic field in which they are engaged. I relate to the perspective that reality is based on individual and group experiences and can change over time. In other words, one's truth is socially constructed (Evans, Forney, Guido, Patton, & Renn, 2010). This interpretation is contrasted with other paradigms that I have considered. For example, a positivist paradigm assumes that an objective reality exists that is time and context-free (Evans et al., 2010). Similarly, post-positivism aims to control and predict but acknowledges that human beings are fallible and thus unable to completely

objectively perceive the world (Clovis & Cobban, 2006). I find a positivist paradigm limiting when I consider this perspective in context with my research objectives. Findings regarding student experiences in post-secondary education can vary greatly and may not be generalizable to all student populations.

Given the diverse contexts that students bring to higher education, I believe that student backgrounds and experiences are vast and varied and thus are best explored through a constructivists' lens. As a result, in this study, the truths and realities of the students who were dismissed from the BSc program are understood to have been constructed through their backgrounds, perceptions, and experiences.

For example, if one is to examine the question "why does such a high attrition rate exist in the BSc program at UBC," an objective measurable analysis that a positivist may adopt would reveal that students are primarily failing first year Biology, Chemistry, Psychology, or a combination thereof. However, I would like to know what lies beneath those failing academic grades. I appreciate that these particular subjects are historical challenges for BSc students; however, understanding their experiences more deeply may enable a more comprehensive appreciation of the institution's role in the provision of support mechanisms that could be implemented to better facilitate students' success. Such experiences may be related to their psychological, social, or academic difficulties in their transition to university or a result of inadequate institutional student support practices. A constructivist perspective involves a belief in multiple truths where reality is subjective and co-constructed (Lather, 2006). I believe that each student's lived experiences may involve a different set of truths that contribute to students' non-progression. Students' personal differences and experiences are arguably too vast to appreciate using objective statistical analyses. Rather, a qualitative exploration into these students' lived experiences may reveal a deeper understanding into their prior experiences before entering UBC as well as their experiences during their first year that led to their dismissal.

As a faculty member who works closely with entering students in the BSc program, I frequently observe the enthusiasm and engagement that most students initially

bring to the classroom, community, and clinical learning environments. However, each year, I also notice that some first-year students appear consistently stressed and somewhat disengaged. Over this time, I have noticed that the Faculty has taken a passive approach with helping students transition into our demanding program. Entering students are not only expected to keep pace with their rigorous academic schedules but they are also expected to manage their own pool of patients in clinical and community practices for the first time. This transition and these new demands can be overwhelming and may be contributing to students feeling overly stressed.

I also entered UBC as a Faculty of Science undergraduate student directly from secondary school. As such, I can relate to transitioning from a small high school learning in classes of 30 students to entering a large research-intensive university with classes comprising hundreds of students, professors who may not know you by your first name, and expectations to learn more independently. Such an experience was intimidating and stressful for me beginning my first year at UBC. However, my undergraduate program was strictly academic comprising only course and laboratory work. I did not have the added demands found within the BDS_c program of managing and treating patients as an undergraduate student while navigating through other academic and social challenges.

While enrolled as a first-year student at UBC, I lived on residence and quickly developed meaningful friendships by participating in residence-related social activities. Reflecting back, my priorities in first year tended to revolve around my social activities more so than my academic commitments. As the valedictorian of my secondary school graduating class at Saint Georges in Vancouver, a university prep school, I was accustomed to receiving top grades and academic awards. Having a father as a physician and a mother as an academic doctor, I did feel pressure to follow in their footsteps and succeed in higher education. Both of my parents were extremely interested in my academic success and stressed the value of education throughout my childhood. Similar to many of the former BDS_c students in this study, the value and cultural capital placed on university education from my parents strongly influenced my choice to pursue higher education at a reputable university such as UBC. My mother identified as a critical race

theorist and further emphasized that as a person of colour, I would have to work harder than the majority white counterparts to achieve a similar outcome.

I recall my first UBC mid-term examination in Physics, a class in which there were over 200 other students and to this day cannot recall my professor's name. For the first time in my life, I had failed an exam. My score of 36% was a shock and sent me in tears to UBC's Womens' Students Office where my mother worked at that time as a counsellor. If I did not have my mother on campus, I would have not known where or to whom to turn for emotional and academic support. I was a small fish in a big ocean at UBC, overwhelmed with new expectations and a foreign learning environment. I recognize that I have had similar experiences to many of my first year students. As a result, I sympathize with their challenging journey and am motivated to help support their success.

The admissions procedures for the BSc program have recently changed, moving away from a rather impersonal online supplemental application process to requiring in-person multiple mini-interviews. This more personal admissions process was implemented to help select applicants based on non-cognitive attributes that our faculty deemed important for health care professionals; it is used to determine the candidates who demonstrate a genuine interest in wanting to study in this program and pursue a career in this field.

Since the admissions process has changed, as a faculty member and administrator, my attention turns to student support mechanisms. I have been a full-time faculty member and Year 1 Coordinator of the BSc program since 2011 and Director of the program since 2015. In these positions, I frequently wonder how students perceive me and other faculty members and hope that they find our presence helpful and supportive. Students are invited to participate in course evaluations and teacher performance surveys at the end of each term but the student response rate remains low. I also hope that students find places, resources, and people on campus with whom they can identify and that helps them develop a sense of university community and belonging. However, for me, the answers to these questions or thoughts remain largely unknown. I have often asked myself the

following questions: what role can faculty and the institution have in effectively supporting students through their academic and social challenges in their first year, and how do entering students perceive and use the present support mechanisms offered by the faculty and university? Barnett (2011) proclaims that understanding faculty's role in student persistence decisions is barely understood. The focus of research has tended to examine student characteristics, academic preparedness, or out-of-class experiences; thus, the role of faculty and classroom practices has been largely unstudied (Barefoot; 2004; Barnett, 2011; Lundquist, Spalding, & Landrum, 2002). Therefore, an additional motivation to this research is to better understand faculty's role in student retention.

As Director and Year 1 Coordinator of the BSc program, I have great concerns about the high annual attrition rate of up to 24% between the first and second years of study in this program. I have proposed this research because the stories shared from the participants may highlight previously unknown academic, social, and personal challenges and institutional barriers experienced by entering first year students which may subsequently inform positive institutional changes in order to more successfully facilitate and support students' transition into the BSc program at UBC.

3.3 Methodological Approaches in Previous Literature

There are many studies that have investigated student experiences and retention in higher education. Most of this research has focused on investigating students who have been successful in progressing to their senior years of study in their respective undergraduate programs across various disciplines (Christie et al., 2008; Clark et al., 2012; Holt, 2005; McMillan, 2013; Palmer et al., 2011; Pascarella et al., 1983; Solorzano et al., 2000; Tinto, 1975; Tobbell et al., 2010; Wintre et al., 2011; Wray et al., 2014). As highlighted in the previous chapter, these researchers have predominantly surveyed, interviewed, and conducted focus groups asking successfully promoted students what social and academic factors facilitated their academic progression.

Research aimed at identifying facilitators of student persistence and institutional retention practices have often employed quantitative methods, distributing surveys to successful students or to program administrators (Clark et al., 2012; Holt, 2005; Johnston,

1998; Nelson et al., 2012; Wintre et al., 2011; Wray et al., 2014; Yoo et al., 2015). This quantitatively designed research primarily distributed closed-ended survey questions and Likert scales to successfully promoted students to answer research questions that aimed to identify relationships or correlations between individual students' characteristics and behaviours or institutional practices and persistence. Findings provided insight about students' utilization rates and satisfaction levels with peer mentorship programs and correlated students' background and family characteristics, stress management strategies, past GPA, frequency of contact with faculty, and participation in social networks with persistence. Other researchers have surveyed program directors and managerial staff to identify student support mechanisms that had been implemented by the institution and to ascertain why some students were not academically progressing (Holt, 2005; Johnston, 1998). Although support programs and administrative perspectives were identified, these quantitative methodological approaches are limited in that they cannot answer questions related to the effectiveness of these programs in retaining students nor could they deeply explore students' perceptions and experiences using these support services.

Qualitative approaches such as grounded theories, phenomenologies, and narratives have also been used to answer research questions through a constructivist's paradigm aimed at exploring students' feelings during the transition to higher education and investigating students' social and academic experiences in their first year. Often informed by Tinto's (1975) student integration theory, Astin's (1984) student involvement theory, Lave and Wenger's (1991) theory of situated learning, Bourdieu's (1977) concept of social habitus, or critical race theory (Palmer et al, 2011; Solorzano et al, 2000; Verjee, 2013; Wexler & Pyle, 2012), researchers using qualitative methods have examined student experiences through observations, journaling, individual interviews, or focus groups. Researchers typically have talked with successful students in their senior years and have asked these participants to recall and describe their experiences to identify what factors facilitated their success during their first year of study.

Most of these qualitative studies have investigated student experiences using a retrospective approach, asking senior students to recall past events through individual interviews (McMillan, 2013; Palmer et al., 2011; Solorzano et al., 2000; Tobbell et al.,

2010; Verjee, 2013; Wexler & Pyle, 2012). Several studies have employed a longitudinal or prospective approach in which the researchers followed their participants through their first year of study and documented experiences as they unfolded (Buddel, 2014; Christie et al., 2008; Corwin & Cintron, 2011; Morosanu et al., 2010). In addition to individual interviews, Buddel (2014) and Corwin and Cintron (2011) used observations and student journaling to triangulate their findings. When various methods of data collection converge through triangulation to yield similar themes, the trustworthiness of the results are often increased (Padgett, 2017).

There is a paucity of research in which the researchers have recruited former students who are no longer enrolled in their initial program of study (Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; Scott et al., 2008; Wilcox et al., 2005). Researchers in these studies interviewed students who voluntarily withdrew asking them for the contributing factors which led to this withdrawal decision. What was learned methodologically in these studies was that recruiting former students can be a significant challenge. This challenge is particularly evident in Lehmann's (2007) study where recruitment efforts that involved inviting 1400 former students from a large research-intensive Canadian university yielded only 42 responses and ultimately 25 participants. Conducting 25 interviews is more than sufficient for qualitative research and saturation purposes (Padgett, 2017). However, the response rate was only three percent which demonstrated the difficulty recruiting a population of former students. For reasons that are not made explicit, it seems that only one round of recruitment was apparent in these studies. As the aim of these studies was not to draw representative samples in order to generalize to a larger population, no effort was seemingly made to increase the sample sizes. Three recruitment considerations that these studies raised are: the number of invitations sent, the timing of the invitations, and the modalities of the invitations (email, mail, phone). Each of these factors can play a significant role in the response rates, which will be discussed later in this chapter.

There appears to be an absence of research that has exclusively explored the experiences of former students who were institutionally dismissed. Former students can provide unique insight into their academic, social, and personal lived experiences that led

to their dismissal. Through the sharing of these experiences, former students can identify what barriers they confronted and what support mechanisms they felt were needed but were either not visible to them or not present. Given this, a qualitative paradigm was chosen for this exploratory study, specifically narrative inquiry. Through focusing on the voice of my participants and their narrative journey of events in their first year of study that ultimately lead to their dismissal, I hope to illuminate their experiences which may inform positive institutional change.

3.4 A Qualitative Narrative Approach

Qualitative research offers insight into individuals' perspectives and experiences, providing a comprehensive understanding of their beliefs, attitudes, and behaviours (Dharamsi, Cobban, & Compton, 2004). This approach facilitates explorative, descriptive, and interpretative methods of understanding human events through investigating the *what*, *how*, and *why* of social experiences and phenomena (Dharamsi et al., 2004; Stewart, Gill, Chadwick, & Treasure, 2008). Qualitative research methods are most appropriate to deeply explore lived experiences from the perspectives of those who lived it and created meaning from it (Padgett, 2017). Similarly, Maxwell (2005) describes several research goals specific to qualitative inquiries: understanding the meaning of social experiences, understanding the context within which the participants lived, identifying unanticipated influences, and understanding the process by which events unfolded.

More specifically, this study adopted a qualitative narrative approach. A qualitative narrative inquiry not only aligns with my constructivist paradigm and subjectivist epistemology but also with the theoretical framing for this research. This methodological approach allowed me the opportunity to explore the experiences and perceptions of former first year students related to constructs within Braxton and Hirschy's (2005) theory of college student departure such as pre-entry academic ability, social integration, academic integration, and perceived institutional commitment to student welfare. Beginning in the 1990s, Clandinin and Connelly's collaborated work articulated the tenets of narratology, the theory and study of narrative inquiry as a research methodology. Their body of works ultimately led to the development of their foundational text, *Narrative Inquiry* (2000).

Dewey's theory of experience (1938) has been attributed as the philosophical underpinning of narrative inquiry (Clandinin & Connelly, 2000). Dewey's two criteria of experience, interaction and continuity, provide the grounding for describing a narrative conception of experience through three dimensions of narrative space including temporality, place, and sociality. Framed within this definition of experience, the focus of narrative inquiry involves not only people's individual experiences but also the sociocultural and institutional narratives within which their experiences are shaped and expressed (Clandinin, 2013).

Clandinin (2013) defines narrative inquiry as a study of human lives to honour lived experiences as a source of important knowledge and understanding. Narrative inquirers may study experiences through methods such as conversing, listening, observing, living alongside, and writing and interpreting texts (Clandinin, 2013). The information shared is retold by the researcher into a narrative chronology (Creswell, 2014; Padgett, 2017). People sharing stories about their life experiences has rapidly gained legitimacy in educational research and is regarded as a valid means of knowledge production (Clandinin & Connelly, 2000; Fraser, 2004; Ollerenshaw & Creswell, 2002). The primary reason for using a narrative approach in educational research is to acknowledge humans as storytelling organisms who, individually and socially, lead storied lives (Connelly & Clandinin, 1990). Polkinghorne (1995) regards narrative inquiry and analysis as the intimate study of human experience where the value and meaning of what participants attribute to experience are shared as a powerful and authentic means for understanding experiences and where generalizations are not the desired outcome.

In narrative inquiry, these stories may detail personal as well as social experiences (Clandinin & Connelly, 2000; Ollerenshaw & Creswell, 2002). In addition to encouraging a plurality of truths, narratives allow for the understanding of the interactions that occur in specific contexts between individuals, groups, and places (Fraser, 2004). Often when people share stories, the sequence of events may be missing or ambiguous; therefore, one of the goals of the researcher is to establish a link between events – it is the chronology of narrative research, with an emphasis on sequence, that sets narrative inquiry apart from other qualitative research approaches (Ollerenshaw & Creswell, 2002). Narrative analysis

not only involves the identification of common themes between participants but also results in a description of the life movement of a particular person (Polkinghorne, 1995). Through asking former students of the BSc program about their lived experiences in a chronological arrangement from the time before entering university, arriving at university, and subsequent perceptions of people and programs in their environment throughout their first year, I gained a deeper understanding of the chronology of their first year experience, what additional support they felt was needed, and to what degree they felt faculty and the institution were committed to their well-being and success.

Clandinin (2013) notes that while the term *story* is often understood as a noun, within narrative inquiry, it can also serve as a verb. When participants share the stories of their lived experiences, the act of threading together the narrative pieces is *storying*. Storying reflects the intent of narrative inquiry to capture experiences as a narrative composition (Clandinin, 2013). Clandinin and Connelly (2000) define a narrative composition as a way of understanding experience over time and within a context involving social interactions. Stories may emerge from a story told directly to the researcher or a story may be co-created between the researcher and the participant. Clandinin (2013) often refers to narrative inquiry as a relational methodology in which the stories lived and shared in a narrative inquiry relationship are always a co-composition that is intentionally present between inquirers and participants. Thus, there is a strong collaborative element in narrative research as stories often surface through the interaction and dialogue between the researcher and participants (Creswell, 2013).

The experience under investigation, shared by all study participants, is the first year of study in the BSc program at UBC. More specifically, the participants will have shared the lived experience of being unsuccessful in progressing to their second year of study. This narrative inquiry is most appropriate to explore these stories of experiences which served to elucidate why some first year students may not be successful in this program. Through a narrative analysis of personal, social, and academic experiences, the stories shared captured meaning and common themes of the first-year student experience in the BSc program while also narrating a sequence of events which helped explain the circumstances that led to the participants' academic dismissal.

3.5 Research Purpose and Questions

The purpose of this research was to explore the lived experiences of first year students who did not progress to their second year of study in the BSc program at UBC in order to better understand their challenges and needs as they enter university. These shared experiences can then inform the development of appropriate student support mechanisms for entering students.

Central research question.

What were the lived experiences of first year students who did not progress to their second year of study in the BSc program at UBC?

Research sub-questions.

1. What were students' experiences as they transitioned into their first year in the BSc program?
2. What were the influencing factors that contributed to students' academic performance and subsequent dismissal in their first year of study in the BSc program?
3. What support mechanisms and resources were needed for students entering the BSc program?

3.6 Underlying Assumptions

Underlying assumptions of the research questions include the belief that these participants desired to be enrolled in the BSc program. Their reasons for applying to this program may stem from motivations other than their own. Another assumption is the belief that students struggled academically and socially in their transition from secondary school to first-year university and that additional institutional support was needed. These questions do not consider that students may have intentionally performed poorly in order to be dismissed by the university due to external pressures for enrolling such as parental or peer influences in choosing the university, program of study, or subsequent health care profession. A third theory-driven assumption is the viewpoint that social integration is a

key influencing factor in the participants' academic success. This assumption has partly informed the framework of the interview guide and analytical approach which is further described in Section 3.11 *Deductive Role of Theory in the Research Methods* of this chapter.

3.7 Inclusion and Exclusion Criteria

This research focused exclusively on student attrition that occurred specifically in UBC's BSc program since I desired to understand and help improve this research problem in my own educational practice environment. Only those students who had been institutionally dismissed from the BSc program were recruited for this study, since almost all students who do not progress to their second year of study in this program have been dismissed rather than withdrawing voluntarily. Since prior research has focused on voluntary withdrawal, this research aims to make a unique contribution to the literature by exploring the influences that lead to students' academic dismissal.

Inclusion criteria.

- Former students who did not progress to their second year of study due to institutional dismissal (academic failure)

Exclusion criteria.

- Current UBC BSc students
- Graduates of UBC's BSc program
- Former students who did not progress to their second year of study due to voluntary withdrawal

3.8 Study Population and Recruitment

Between 2007-2015, 37 BSc students left the program; seven of whom left for voluntary reasons while 30 students were academically dismissed by the institution. All 30 students who did not successfully progress to their second year of study due to institutional dismissal during this time period were invited to participate in this study (see

Appendix A). From these 30 prospective participants who met the study’s inclusion criteria, 10 former students volunteered to participate.

In qualitative research, researchers sample not to maximize breadth or reach, but rather to become saturated with information about a specific topic, meaning the point at which no new information or themes emerge (Creswell, 2014; Padgett, 2017). A qualitative study may have fewer participants than originally proposed and anticipated (because the data becomes saturated earlier), or the study may result in a larger sample because of the need to pursue new unexpected leads that emerge from the analysis (Padgett, 2017). As Abrams (2010) states, qualitative researchers rarely predetermine the number of participants; as such, researchers often do not know when a study will be thematically saturated or when further data generation will stop yielding new insights. Therefore, rather than having a predetermined number of participants (maximum would be 30) or aiming for data saturation, I included all former students who volunteered to participate.

Participants varied in the cohort year in which they were enrolled as a first-year student at UBC, age when enrolled, prior education, parents’ highest level of education, parents’ levels of interest in the participants’ education, accommodation, employment status, financial aid required, and self-identified culture. Table 2 below presents participants’ demographic information. Additional participant information that provides further meaning to Table 2 will be presented descriptively through vignettes in the following chapter that capture their background and story.

Table 2

Participant Demographics

Participant Demographics	Number of Participants (n=10)
Year Enrolled in BSc Program	
2007-2008	1
2009-2010	1
2010-2011	1
2011-2012	3
2012-2013	3
2013-2014	1
Age when Enrolled	
17-18	5
19-20	3

21-22	2
Prior Education	
High School Diploma	9
1 year at College	1
Parents' Highest Education Level	
High School Diploma	3
Post-Secondary Diploma or Degree	7
Accommodation	
Commuter: Living off-Campus with Family	9
Employment Status During First-Year	
Employed Part-Time	4
Not Employed	6
Financial Aid Required	
Yes	6
No	4
Self-Identified Culture	
Visible Minority	7
Western European	2
Mixed	1
Educational Status after UBC	
Dropouts	2
Transfer-outs	8

Given the power imbalance between myself as a researcher and faculty member and participants who are former students, a third-party recruiter was used to prevent potential coercion in the effort to recruit participants. The Manager of Academic Progress, a staff member in UBC's Faculty of Dentistry and the gatekeeper to the faculty's student records information, collated and provided the email addresses of former first year BSc students to a third-party recruiter. This third-party recruiter was a research assistant affiliated with UBC's Faculty of Dentistry who did not previously know or interact with the prospective participants. The recruiter distributed an email broadcast to the 30 former students of UBC's BSc program who were institutionally dismissed with a message about the description of the study including the study's purpose, the inclusion and exclusion criteria, and attached a letter of invitation to participate (see Appendix A). The recruitment message was sent to the former students using the email addresses that they provided to the program at the time of their application. The message that was distributed in this recruitment email broadcast was written by me, approved by the behavioural research ethics review boards at SFU and UBC, and was not altered by the third-party recruiter once the study obtained ethics approval. A follow-up email with the same recruitment message was distributed from the third-party recruiter approximately two weeks after the initial invitation message

to remind interested participants to read the participant invitation letter and to contact the researcher if they wish to participate. Four email messages were unsuccessfully delivered (mail delivery failure notification received) resulting in 26 potential participants.

The third-party recruiter was not informed of whether a potential participant decided to participate or not. Interested participants who meet the study criteria contacted me directly via email, as instructed in the email broadcast message. I established first contact with each participant through email and included a review of the research purpose and process, confidentiality procedures, eligibility criteria, and preferred method of being interviewed (in-person, Skype®, or telephone). At this time, I also provided the participants with a participant consent form (see Appendix B). A location, date, and time for an interview was determined together according to what was most convenient and comfortable for each participant.

As mentioned earlier, there are only a few studies that have recruited former students who are no longer enrolled in their initial program of study (Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; Scott et al., 2008; Wilcox et al., 2005). These few studies demonstrated that recruiting former students can be a significant challenge. Stemming from these studies, three recruitment considerations for difficult-to-reach populations included: the number of invitations sent, the timing of the invitations, and the modalities of the invitations (email, mail, phone). Only one round of recruitment was apparent in these studies; a second round a recruitment distributing an invitation to potential participants may have yielded a higher response. Prolonged engagement and providing detail can serve as effective recruitment strategies when attempting to recruit difficult-to-reach populations (Abrams, 2010).

My study employed two rounds of recruitment messages over a two week period and provided extensive detail about the study's purpose and participant expectations in the letter of invitation and participant consent form. The Faculty of Dentistry's Associate Dean of Research and the Manager of Academic Affairs did not permit the release of home mailing addresses or telephone numbers of former students to the third-party recruiter. Therefore, email recruitment was the sole method through which invitations to

participate in this study was delivered. After the distribution of the first invitation message, I received six responses from former students who expressed interest in participating; the second follow-up recruitment message resulted in another two responses for a total of eight participants successfully recruited through the broadcast messages.

Additionally, I relied on snowball recruitment that can be used with difficult-to-reach populations. Qualitative social work researchers have great interest in difficult-to-reach populations such as drug users, sex workers, incarcerated youth, and homeless people; researchers often recruit these populations through the use of an agency gatekeeper and a street-based snowball approach (Abrams, 2010). Snowball recruitment relies on current participants, through their networks, to assist in the recruitment of other potential participants who meet the study's inclusion criteria (Abrams 2010; Padgett, 2017). Agadjanian and Zotova (2012) assert that incentivizing participation through compensation and paying participants to recruit others are effective strategies for recruiting difficult-to-reach populations. Since recruiting former students may be a challenge due to potential residual feelings of resentment towards the institution or feelings of embarrassment, I relied on former students who agreed to participate to assist in the recruitment of their peers who were enrolled in the BDSc program and were also academically dismissed by the institution. Once data collection commenced through interviewing, I realized that participants were still in communication with other former students of the BDSc program; therefore, I had asked participants to remind their peers who met this study's inclusion criteria of the opportunity to participate. After appreciating that the interview experience was a positive one, several participants agreed to assist my recruitment efforts. Two additional participants contacted me as a result of this snowball recruitment, totaling 10 participants in my study. Participation was incentivized through an offering of a \$50 Visa gift card for each interview.

3.9 Data Collection: The Interview and Establishing a Narrative Chronology

To hear the stories of the first year experience, this research involved a series of individual interviews with former students of the BDS_c program who were institutionally dismissed after their first year of study. Conducting at least two interviews with each participant is optimal and helps distinguish qualitative methods from their quantitative counterparts as a means to explore experiences and phenomena deeply (Padgett, 2017). Multiple interviews allow for the building of rapport, forward momentum, exploring incomplete information from the previous interview, and more meaningful engagement and discussion (Padgett, 2017). As a result, multiple interviews facilitate the study of experience and the emergence of chronological and relational stories that are central to a narrative inquiry (Clandinin & Connelly, 2000). As Clandinin (2013) and Ollerenshaw and Creswell (2002) state, one of the goals of narrative inquiry is to establish a sequence of events. To use this narrative inquiry approach, the order of my interview questions journeyed the former students through the chronology of their first year experience from time of application, to transitioning into their first semester, and finally through their second and final semester. I conducted two interviews with each participant (20 interviews total). The second interview was conducted at least one week after the initial interview with each participant to allow for some reflection time and member checking of the first interview transcript. This time in between interviews also facilitated the exploration of potential incomplete information and subsequent elaboration from both my perspective and the participants' perspectives.

Individual interviews were conducted in-person or through the telephone and ranged from 44 minutes to 84 minutes each in length. The interview guide was semi-structured, and the questions were open-ended to ensure that the researcher provided space to hear the voices of the participants (see Appendix C for the interview protocol). The participants were provided with these interview questions electronically a few days before the interview in order to allow for adequate reflection time to provide more thoughtful and accurate responses. The development of the interview questions was informed in part by constructs within Braxton and Hirschy's (2005) student departure theory discussed in

Chapter 2. Questions were derived from themes evident in the literature that speak to sociological, psychological, and organizational variables that influence student persistence.

There are many examples of the unstructured or semi-structured interview to facilitate storytelling as an appropriate data collection method in narrative inquiry (Connelly & Clandinin, 1990; Creswell, 2014). Three in-person interviews occurred at a time and location of the participant's choosing and were audio-recorded and subsequently transcribed verbatim with each participant's informed consent. Six telephone interviews were also audio-recorded with the participants' consent and transcribed verbatim. These telephone interviews occurred with those participants who either resided outside of the Greater Vancouver Regional District or felt more comfortable discussing their experiences through telephone rather than meeting with me in person. One participant, who was interviewed through the telephone, felt uncomfortable being audio-recorded so I relied on my writing of descriptive and thematic notes throughout our two conversations to help capture her story. Transcripts and notes were verified by each research participant. Details pertaining to respondent validation through soliciting participant feedback are discussed in the section below entitled *Trustworthiness*.

Most narrative inquiries involve storytelling using a process that involves a researcher engaged in conversations with participants who share stories of their experiences (Clandinin, 2013). Since narrative research encourages storytelling, Fraser (2004) recommends a casual conversational style of interviewing. I attempted to create a casual and safe conversational style environment through acknowledging the contexts of the participants, respecting and responding to different communication styles, avoiding cross-examining my participants, demonstrating sensitivity to the time and location of participants, facilitating a climate of trust through rapport building over two interviews, ensuring space for participants to ask their own questions, and sharing some of the interpretations made to solicit feedback.

Narrative inquiry is different from simply interviewing. Interviews are one vehicle to facilitate storytelling. However, narrative inquiry does not simply entail eliciting verbal responses to questions but is rather a study of experience where experience is seen as a

narrative composition of chronological and relational stories (Clandinin & Connelly, 2000). To establish a chronology to this narrative research and the student experience, the order of the interview questions took the participants through their experiences chronologically: time of application and reason for applying to the program, entering university and transitioning to university life in their first week, academic and social experiences in their first semester, and experiences in their second and final semester.

3.10 Data Analysis

Nine of the ten participants consented to be audio-recorded, and each of the audio-recorded interviews were subsequently transcribed verbatim. I wrote thematic notes and was able to document brief quotations for the one participant who did not provide consent to be audio-recorded. These transcripts and notes were provided to the participants for review. Data analysis began immediately after finishing the first interview and continued throughout the data generation phase. Data analysis primarily involved coding, thematic analysis, content analysis, and memo-writing that arose from pattern recognition and thematic development within the interview transcripts and the researcher's memo notes. Data analysis involved a few steps including a synopsis of each participant's experiences (textual description), an examination of the context of these experiences (structural description), and finally a condensation and categorization of the major patterns and themes associated with these experiences (Padgett, 2017). Through a continuous comparative analysis, I remained cognizant of similar incidents between interviews/transcripts, searching for patterns but also remained alert to irregularities and discrepant cases.

Based on a *three-dimensional space approach* to narrative analysis, conceptualized by Clandinin and Connelly (2000), there are three concepts to consider when using a narrative analytical process to reading transcripts and interpreting information: interaction, continuity, and situation. Therefore, I analyzed transcripts for personal experiences of each storyteller as well as for the interaction of the participant with other people in various social contexts. I also analyzed each transcript for past experiences (prior to entering the program) of the storyteller to establish links or continuity of experience. Finally, I analyzed the

sequence of events pertaining to the experience under investigation within the storyteller's landscape or situation (Clandinin & Connelly, 2000).

Following the transcription of each interview, I read each transcript in its entirety to relive the interview then read across questions. This approach facilitated the fracturing and categorization of the data into specific codes identifying common themes to each question as the chronology of experience unfolded. A code is most often a word or short phrase that represents a summative, salient, and essence-capturing attribute in written or language-based data such as interview transcripts (Saldana, 2013). In qualitative research, the goal of coding is to *fracture* the data and rearrange them into categories that facilitate comparison between ideas in the same category (Creswell, 2014; Maxwell, 2005). Coding is not just labeling but rather it is linking that leads one from the data to the idea (Padgett, 2017; Saldana, 2013). Coding is therefore a method that enables a researcher to organize and group similarly coded data into categories or families because they share a common characteristic – the beginning of a pattern (Saldana, 2013). The outcome of the analytic reflection involved with coding and categorization is a theme (Creswell, 2014; Saldana, 2013). Connecting codes is the process of discovering patterns and themes in the data (Fereday & Muir-Cochrane, 2006).

I identified what Saldana (2013) defines as *descriptive codes* and *in-vivo codes* and placed these codes along the margins of the interview transcripts. Descriptive codes summarize the primary concept or topic of the text excerpt while in-vivo codes are taken directly from what the participants say and often involve exemplar quotes in order to keep the data rooted in the participants' own language (Saldana, 2013). With these repeated similar codes and direct quotations, I then formed categories on a separate document.

I adopted both a deductive and inductive approach to data analysis and coding. Deductive analysis tests whether data is consistent with previously known theories or prior assumptions identified by the researcher whereas the primary purpose of an inductive approach is to allow research findings to emerge from the significant themes inherent in the raw data without restraints imposed by structured methodologies or previously known theories (Fereday & Muir-Cochrane, 2006; Thomas, 2006). Bazeley

(2009) refers to the inductive approach to analysis as exploring for emergent or unanticipated themes.

To assist my approach to coding, I developed a *codebook* (see Appendix D): a set of codes, definitions, and examples used as a guide to help analyze qualitative data (DeCuir-Gunby, Marshall, & McCulloch, 2011). I regarded this codebook as a coding protocol or set of instructions to myself, much like a dictionary, for each category I was developing to ensure my coding was rigorous and to direct what codes should be placed in which categories. This codebook helped establish a consistent approach of assigning codes to categories. DeCuir-Gunby et al. (2011) state that codebooks can be developed a priori and may be further refined through an iterative process that may necessitate revising definitions as the researcher gains clearer insights about the interview data. Using this approach, my codes and coding protocol developed a priori from existing theory and prior research, and new emergent codes surfaced from the raw data. This approach resulted in theory-driven codes (deductive) and data-driven codes (inductive). Once these codes or categories had been established, I next looked to find emerging themes within each of these categories.

Each interview was read in its entirety with the objective of writing individual short interview narrative summaries. These narrative summaries allowed me to see threads that permeated through the interviews and thereby maintained the context for the quotes which I lifted out of the interviews and used as examples when discussing the results of this research. These transcripts and interpretative narrative summaries were provided to the participants for feedback to allow for two rounds of member-checking to ensure accuracy of the findings and my interpretations (Padgett, 2017). Clandinin (2013) often refers to the resonant narrative threads that surface in narrative inquiry as stemming from a co-composition between researchers and participants. My narrative summaries outlined the chronology of the lived experience in the first and second semesters storied by each of the former students during the interviews. Providing these summaries to each participant helped ensure that the former students were engaged in the co-construction of their own stories, as they had the opportunity to clarify or elaborate on what they previously shared.

I also used content analysis to help emphasize the prevalence of certain themes. Content analysis has a largely quantitative history and was developed to quantify the number of incidents of some phenomenon (Padgett, 2017). Numbers and counting may be used during coding and theme development, although it is relatively uncommon in qualitative data analysis. Counting themes via frequency and percentages can help with identifying patterns and with disseminating information to a variety of audiences (particularly those who are more quantitatively inclined) once the research is complete, but content analysis should be regarded as an adjunct to interpretation as qualitative research favours describing *what is* rather than *how much* (Padgett, 2017).

As Clandinin (2013) writes, narrative inquiry is a relational inquiry. As such, narrative inquirers need to be sensitive to hearing the stories that emerge and link relationships between the person and place, between events and feelings, between people and others in their surroundings, and between participant and researcher (Clandinin, 2013). In addition to conducting two interviews with each participant, I wrote memos throughout the data collection and data analysis stages. Memo-writing facilitated the linking of events that ultimately narrated the chronology of participants' experiences and helped identify relationships involved more clearly. In qualitative research, memos work alongside other sources of data such as transcripts to provide supportive documentation for a study (Birks, Chapman, & Francis, 2008).

Writing analytical memos during data collection and analysis provides an avenue for the researcher to examine data in greater depth through exploring relationships and explanations contained within the data (Birks et al., 2008). Writing memos also enabled me to reflect on my coding process and thematic development and facilitated researcher reflexivity as I was able to document and revisit connections between stories more visibly (Saldana, 2013). Researcher memo writing during data collection and analysis also served to help bracket my own assumptions and biases. Soliciting feedback from the participants through the process of *member checking*, outlined in more detail below, also facilitated the bracketing of my own assumptions. Bracketing involves a conscientious effort to sideline or suspend preconceptions, assumptions, and beliefs about what may be real in order to better understand the experiences of participants (Padgett, 2017). Memos helped ensure that

I remained focused on the voice of the participants and more clearly or objectively visualized the links that were emerging between participants' chronological experiences and relationships to events, people, and contexts. In-depth multiple individual interviews and memo-writing helped capture the narrative of the first year student experience.

3.11 Deductive Role of Theory in the Research Methods

Theory informed both the design and analysis components of this proposed research. Braxton and Hirschy's (2005) student departure theory provided a framework regarding what issues were important and relevant to explore, either to reaffirm previously known beliefs or to add to the literature of student retention in higher education from a different perspective, context, and population. For example, the notion that social integration is essential for student retention for students who voluntarily withdraw from higher education has partly informed the interview questions in this research. I integrated interview questions that examined the influence and relevance of social integration for those students who have been institutionally dismissed. Sociological theories and empirical research (Bean & Metzner, 1985; Bourdieu, 1986; Braxton & Hirschy, 2005; Hossler et al., 2008; Lambert et al., 2004; Tinto, 1975; Wexler & Pyle, 2012; Wintre et al., 2011) have also spoken to the influence that family socioeconomic status, parental level of education, and parental level of interest in their children's education can have on a student's academic success; therefore, the interview guide also aimed to capture this information.

Braxton and Hirschy's (2005) model also associated students' educational and career aspirations with persistence. As a result, I incorporated an interview question that asked participants to respond to their motivating reasons for choosing UBC and for pursuing a BSc degree that aimed to speak to such goals and aspirations. Another question in my interview guide explicitly asked participants about their perceptions of institutional commitment to student well-being, another concept derived directly from Braxton and Hirschy's (2005) model.

Theory also informed the lens with which I approached the data analysis phase of this research. I looked for similar descriptions, patterns, and inevitably themes related to

social and academic integration and known psychological influences to the student experience when coding the interview transcripts. For example, Braxton and Hirschy's (2005) organizational construct, institutional integrity and institutional commitment to student welfare, can influence students' levels of social and academic integration and their levels of commitment. Therefore, part of my data analysis involved searching for themes pertaining to student perceptions of the faculty and institution's commitment to student success and well-being. However, I recognized that I must be cognizant to not limit my analysis to solely focusing on descriptions related to prior theories. Themes generated from the data analysis not only tested and complemented what is already known about the influences on student retention, but new findings and influencing factors also emerged that added to existing theoretical frameworks.

3.12 Challenges and Limitations to Methods

Since this study involved interviewing former students who had been institutionally dismissed from the BSc program at UBC, recruiting this population was challenging. Firstly, students who have been dismissed may be less willing to participate in a study about the program in which they failed due to possible feelings of resentment towards the institution or embarrassment. Secondly, former students were recruited using emails that they provided at the time of admission to the program. These email addresses may have changed since the time of their leaving the institution; consequently, the email recruitment broadcast message may not have successfully reached some former students. As stated earlier, four email messages were unsuccessfully delivered and bounced back. The Faculty of Dentistry's Associate Dean of Research and the Manager of Academic Affairs did not permit the release of home mailing addresses or telephone numbers of former students to the third-party recruiter. Therefore, email recruitment was the sole method through which invitations to participate in this study was delivered. Using other methods of information delivery such as traditional mail through Canada Post or through telephone contact may have resulted in a higher response rate to recruitment efforts.

Self-selection bias may have been a limitation. Students with the greatest perceived resentment towards the program or university may have opted not to participate

due to negative feelings of anger and embarrassment. To help manage the challenges with recruitment and self-selection bias, participation was incentivized with a \$50 gift card for each interview (\$100 for two interviews). In addition, two recruitment broadcast messages were distributed over a two week period to ensure a prolonged engagement during recruitment. Finally, I also relied on those former students who did participate to assist me with recruiting their peers who also met the study's inclusion criteria, a practice known as snowball recruitment (Abrams, 2010; Padgett, 2017).

Even though I recorded memo-notes, another perceived limitation involves solely using interviews as the one method of data collection from participants. Some researchers who have conducted longitudinal studies, in which they followed their participants over time, triangulated data through the use of interviews, journal entries, and observations (Buddel, 2014; Corwin & Cintron, 2011). However, many qualitative pieces of research investigating student experiences using a retrospective approach, such as this study, have relied on either one-time or multiple interviews as the single method of data collection and have yielded meaningful findings (Lehmann, 2007; McMillan, 2013; Palmer et al., 2011; Solorzano et al., 2000; Verjee, 2013; Wilcox et al., 2005). For my next research study after this doctoral degree, as I will describe in the *future areas of research* section in the conclusion of this dissertation, I would like to conduct a longitudinal study and triangulate findings through the use of interviews, weekly journal entries, and observations, as I wish to closely follow entering BDSc students through their first year of study and document experiences as they unfold.

With regard to the practice of narrative inquiry and data analysis, Clandinin and Connelly (1990) and Richmond (2002) caution against the illusion of causality. This phenomenon occurs when a sequence of events, when examined retrospectively, can appear to have a causal relationship and may appear deterministically related (Clandinin & Connelly, 1990). I should also be mindful of a potential difference between “the events-as-lived and the events-as-told” in the storytelling process (Clandinin & Connelly, 1990, p.7). The storyteller's identity remains the same although the story may change over time (Richmond, 2002). To help manage this challenge, Clandinin and Connelly (1990) remind researchers that narratives are not written for cause-and-effect reasoning

nor for researchers to become lost in minutia but rather to appreciate a sense of the whole narrative and overall patterns that develop through the stories shared.

3.13 Trustworthiness

Trustworthiness refers to the correctness or credibility of a description, interpretation, or conclusion: threats to trustworthiness are ways that a researcher may be wrong (Maxwell, 2005; Padgett, 2017). I implemented specific strategies to increase the trustworthiness of the findings. Firstly, to ensure that the data collection captured all that the participants expressed and to ensure that their representations of experiences were documented completely, nine of the ten interviews were audio-recorded and subsequently transcribed verbatim. Secondly, I ensured that the information shared is recorded and interpreted accurately through the process of *member checking*.

Qualitative researchers may seek verification of findings by going back to the study participants through a process referred to as *member checking* which can be an important step in guarding against researcher bias (Creswell, 2014; Padgett, 2017). Member checks shift the authority towards the study participants, thereby properly challenging the status of the researcher as the infallible observer (Creswell & Miller, 2000; Padgett, 2017). Maxwell (2005) refers to this member checking process as *respondent validation*. He states that systematically soliciting feedback about the data from the people being studied is the single most important way of ruling out the possibility of misinterpreting the meaning of what participants say.

I conducted member checks in several phases in this study. Firstly, member checking with each participant occurred after each of the interviews had been transcribed. The participants were offered the opportunity to review their transcript to relive what was discussed and to ensure the accuracy of their statements and stories. In this process, each participant was provided with an opportunity to add, edit, or remove any information. Three participants responded with additional comments and edits to their transcripts. No information from transcripts was challenged or removed. Rather, participants generally elaborated on experiences after having some time to read and reflect on what they had expressed. For example, when reviewing her comments regarding excessive instructor

attention in high school, Yoon added an example of this experience that she was able to recall only after the interview: "... When I hand in an assignment I would get feedback right away." Transcript edits from the other two participants were similar in nature, as participants were able to recall and add some additional details. The one participant who did not consent to be audio recorded did not have a transcript to review; however, she was provided with a short interview summary as explained next.

Secondly, I composed a short interview summary comprising my interpretation of the responses to each interview question. The summary highlighted each participant's chronological and relational experiences. This interpretive summary was given to the participants for review to verify the developing narrative and to ensure that my interpretations of what participants had intended to convey were accurately representative of their thoughts and feelings. Participants were also provided with an opportunity to create pseudonyms and review and edit their personal vignettes which are presented in the following chapter. This process of continuously soliciting feedback from the participants helped ensure that they consistently felt their experiences and memories were being captured completely and fairly represented. In addition, soliciting participant feedback facilitated the process of bracketing my own assumptions and beliefs.

Writing analytical memos and journaling during data collection and analysis provided me with another avenue to minimize researcher bias and to examine data in greater depth through exploring relationships and explanations contained within the data (Birks et al., 2008). In another attempt to minimize researcher bias, I remained aware and acknowledged discrepant evidence and negative cases in the interview data. I read and interpreted the interview transcripts with a critical eye, ensuring that I not only looked for information that may fit with existing related theories or my expectations and beliefs. Searching for negative cases and discrepant information enhances fairness, giving equitable attention to differing viewpoints and avoiding favouritism and lopsided and biased interpretations (Creswell, 2014; Padgett, 2017).

To help manage biased responses when conducting the interviews, I used caution when reacting, verbally and non-verbally, to each participant. If I heard something that

excited me or that I agreed with during the interview and conveyed these feelings through subsequently nodding or smiling or aggressively note-taking (or all of the above), then the participant may continue to emphasize these points to which I reacted favourably. Trying to completely eliminate the researcher's effect on the interview is not a meaningful goal for qualitative research as the researcher has a powerful and inescapable influence (Maxwell, 2005); however, acting professionally and impartially and avoiding leading questions can help prevent the more undesirable consequences of this effect. However, having said this, the narrative approach embraces a relational methodology in which the stories lived and shared in a narrative inquiry relationship are a co-composition that is intentionally present between inquirers and participants (Clandinin, 2013). Therefore, I do recognize that there is a strong collaborative element in the narrative research process and many of the stories shared likely surfaced as a result of the interaction and dialogue between me and my participants (Clandinin, 2013; Creswell, 2013).

3.14 Ethical Considerations

Classification of study.

Ethics approval was received for this study from Simon Fraser University's and the University of British Columbia's Behavioural Research Ethics Boards through a harmonized process under the category of minimal risk. The Tri-Council Policy Statement 2 defines a study to be minimal or low risk if potential participants can reasonably be expected to regard the probability and magnitude of possible harms implied by participation in the research to be no greater than those encountered by the participants in those aspects of their everyday life. I consulted with the Privacy Manager at UBC's Office of the University Counsel and received permission to recruit study participants using e-mail addresses which the faculty's gatekeeper, the Manager of Academic Affairs, stored in her office.

Confidentiality.

Strategies were implemented to ensure confidentiality. As e-mail addresses of the potential study participants were accessed only through the student records information by

the Manager of Academic Progress, I did not have access to these email addresses. Having a third-party recruiter e-mail the introductory broadcast message and invitation letter to the potential study participants (see Appendix A) assisted further in confidentiality. This third-party recruiter was not informed of whether a potential participant decided to participate or not. Those former students who expressed interest in participating in the study voluntarily contacted me and shared their contact information which was not shared with others. During the data generation phase, a third-party transcriber signed a confidentiality agreement to keep private the information shared while listening to the audio-recordings and deleted all files from her computer after transcription.

To ensure confidentiality, all identifiable information was removed from audio-tapes and transcripts. Once a study participant, all names were assigned a participant number so no statements or direct quotations could be linked directly to a specific individual. Only I knew the identities of each participant. Finally, no identifying information was included in the final reports.

Security of data.

All computer data files were password protected. Once the interviews were transcribed, backed-up, and member checked, I erased all audio-recordings. Electronic data records (transcriptions of interviews) were stored in a password protected file on a USB drive which was located in a locked cabinet in the principal investigator's office and only accessible by me.

Dissemination of results.

The findings will be shared with the research participants through this dissertation. In addition, findings from this research will be published in higher education journals in order for higher education professionals to integrate the knowledge acquired from these participants and translate the findings back into their own educational practice environments.

Chapter summary.

This chapter introduced my epistemological perspective and method to answer the research questions aimed at better understanding the lived experiences of former first-year BSc students at UBC. The details regarding how this exploration was designed and implemented has been presented. In the next two chapters, the journeys of the 10 former students are chronologically storied. Given that my own journey forms part of this narrative approach, experiences that I found surprising are identified and reflections in the concluding chapter summarize my own tensions experienced and lessons learned.

Chapter 4. Participants and First Semester Experiences

4.1 Introduction

The following two chapters outline the stories that emerged from the participants' interviews as they detailed their lived experiences as first year students in UBC's BDS_c program. Participants reflected on their experiences situated towards the past, present, and future within various contexts; this chapter discerns the emerging resonant narrative threads that resulted. Resonant narrative threads refer to patterns or themes that reverberate across narrative accounts (Clandinin, 2013). Narrative inquiry extends beyond simply eliciting and reporting verbal responses to questions but is rather a study of experience where experience is seen as a narrative composition of chronological and relational stories (Clandinin & Connelly, 2000). As such, results in these chapters will be presented as a chronology. The stories shared here will bring the reader through the sequence of events as experienced by the participants. Chapter 4 begins with outlining the participants' demographical information through individual vignettes. Next, the chapter journeys readers through the time of application to the university and participants' reasons for applying to the program, arriving on campus and transitioning to university life in their first few weeks, and academic and social experiences in their first semester. Chapter 5 continues by exploring these former students' experiences in their second and final semester. Chapter 5 concludes as participants discuss the experiences they believed hindered their academic success and offer suggestions to improve the first-year student experience.

4.2 Participants

Ten former first-year UBC BDS_c students participated in this study. Participants varied in the cohort year in which they were enrolled as a first-year student at UBC, age when enrolled, prior education, parents' highest level of education, parents' levels of interest in the participants' education, accommodation, employment status, financial aid required, and self-identified culture. Table 2 in Chapter 3 summarizes this information. Below, the participants are introduced in more depth through individual vignettes using

pseudonyms which aim to capture each participant's background and story. Participants were provided with an opportunity to create their own pseudonym and to review and edit their vignette. Following the vignettes, commonalities between participants and unique attributes are described to gain a better understanding of past experiences and collective contexts that they brought to UBC.

Natasha

Born and raised in Vancouver, Natasha was 20 years of age when she enrolled in the BSc program. She described herself as mixed race (Chinese and European). After high school, she worked for two years before entering the program. Both of her parents as well as all members of her social circle had either earned a post-secondary credential or were currently enrolled in higher education so she had always anticipated pursuing a university degree. Natasha described her parents as being extremely supportive during her university education and chosen health profession of dental hygiene. Self-described as middle-class, her UBC tuition was supported by parental savings in an RESP and from her own prior employment income. Natasha continued to work part-time in retail while enrolled in her first year. She lived at home with her parents in Surrey during her studies at UBC and commuted one hour to and from campus daily.

Soraya

At 22 years of age when she enrolled in the BSc program and of South Asian ethnicity, Soraya was born in East Africa before immigrating to Canada as a toddler. After completing high school in Vancouver, Soraya worked for several years in retail before applying to the program. Both of her parents have college diplomas, and Soraya had aspirations of pursuing a master's degree after completing the BSc program. Her parents were extremely supportive of her entering a health profession, and they both suggested dental hygiene as the starting point of her educational journey. Her parents provided full financial support while enrolled in the BSc program and did not want Soraya to be employed while studying in order to remain focused. Soraya lived at home in Coquitlam with her parents as a first-year student and commuted approximately 75 minutes to and from the university campus.

Yoon

Yoon was 18 years of age when enrolled as a first-year BSc student and described herself as a Chinese-born Canadian. Yoon entered the program immediately after graduating high school in Richmond, British Columbia. Her preference was to have taken a year away from studying after high school matriculation; however, her parents were adamant that she continue her studies. Her parents' highest level of education was a high school diploma. Yoon attributed her parents' strong desire for her to attain a university degree and her parents' passive engagement in her studies while enrolled in the BSc program to her Asian culture. Her father depleted his savings to pay for her UBC tuition, and Yoon was able to secure several student bursaries. Yoon was not employed and lived with her parents in Richmond, involving a one hour commute to campus, while attending UBC.

Shora

Shora was 17 years of age when enrolled as a first-year BSc student. As a self-described Pakistani-born South Asian, Shora emphasized the importance of her ancestry in her household in which the meals provided and language spoken at home in Surrey was based on Pakistan traditions. Shora had an older sister who was also enrolled at UBC. Her father had earned a degree in Pakistan. Her parents showed great interest in her education since post-secondary credentials were important to their family for reputation and career opportunities. Both Shora and her sister were not employed while studying at UBC; their parents partially supported their education financially and outstanding tuition was paid for by student loans. Shora lived at home in Surrey while in first year and joined her sister for their 90 minute commute to the university daily.

Kristine

Born and raised in Vancouver but describing her culture as Vietnamese, Kristine entered the BSc program directly from high school at the age of 18. Her parents were well educated, having earned university degrees from Vietnam where her father was an engineer and her mother a teacher. After immigrating to Canada, neither of her parents'

educational credentials were recognized, and they found their spoken English to be a significant language barrier. As a result, her parents had entry-level jobs in Vancouver. Despite these challenges, Kristine described their financial situation to be middle-class. UBC tuition was paid partially by parental savings and through student loans and bursaries. Her parents expected Kristine to pursue higher education since their main impetus for emigrating was to provide greater opportunities for Kristine in Canada. While in first year, Kristine's parents did not intervene or follow up with her progression – the implicit expectation was that Kristine would work hard. Kristine lived at home with her parents in Vancouver while enrolled in the BDS_c program. She found herself in isolation while navigating through a challenging personal relationship with her boyfriend during this time.

Aya

After working for two years and studying in Kwantlen University's general science program for one year, Aya enrolled in UBC's BDS_c program at the age of 21. Emigrating from India but raised in Surrey, British Columbia for most of her life, Aya identified as part of the East Indian South Asian culture. Both of her parents had earned a bachelor's degree in India. Aya was interested in pursuing medical school after the BDS_c program. Aya described her family to be middle-class. Her parents were extremely interested in her education and supported her financially during her first year. Aya lived at home with her family in Surrey while at UBC and commuted two hours each way to and from the university campus.

Ashley

Ashley emigrated with her parents from China when she was five. She described herself to be Chinese-Canadian. After graduating from an International Baccalaureate program in high school, Ashley spent one year traveling to think about career choices. Since both of her parents were health care professionals, Ashley's parents were fully supportive of her decision to enroll in UBC's BDS_c program at the age of 19. Self-described as middle-class, a combination of her parents' RESP savings and student loans fully paid for her tuition. Ashley worked part-time in retail and lived at home with her

parents during her first year of study. Living in Richmond, her daily commute involved a one hour commute to the UBC campus on public transit.

James

Born in Calgary but raised in the Philippines for most of his life, James described himself to be a Filipino-Canadian who was very close to his church community. James worked full-time for one year after high school and then decided to enroll in the BDS_c program at the age of 19, inspired by his older sister who was a dental hygienist. While at UBC, James lived off-campus with his sister in Richmond, a 50 minute commute to campus using public transit. As a first-generation university student, James' parents in Calgary were supportive of his career decision and expressed great interest in his academic grades throughout his first year. James described himself to be financially sound and exuded pride that he was able to support his own costs associated with attending UBC using his own savings.

Jessica

Jessica entered UBC's BDS_c program at the age of 18 directly after graduating from high school in Calgary where the rest of her family lived. She described her cultural background as British and Scottish and was close with her church community in Calgary. Both of her parents have a university degree, and her sister was attending a degree program in Alberta. Since her Mom was a health professional, Jessica felt very supported in her decision to pursue dental hygiene. Jessica described her family as middle-class and financially sound. Her tuition was being supported by her own savings and through student loans as her parents wished for their children to pay for their own education to fully appreciate the value of money. Jessica moved away from home for the first time to reside on-campus at UBC during her first year.

Lindsay

Lindsay enrolled in UBC's BDS_c program at the age of 18 directly after completing high school. Born in Vancouver, Lindsay described her culture to be European indicating that her parents had emigrated from England. Her parents had earned

high school diplomas as their highest credential. Her father traveled for work frequently so she was raised at home mostly by her mother. Lindsay's mother in particular was quite excited about her pursuing a university degree and frequently asked about her homework assignments and exams. Lindsay described her family as middle-class and financially sound. Lindsay worked part-time in retail while at UBC to help pay for tuition and also relied partly on student loans. She lived at home with her family in Vancouver as a first-year student.

The 10 participants represented a variety of different student cohorts ranging from the program's inaugural year in 2007-2008 to as recent as 2013-2014. Participants' ages ranged from 17 to 22 at the time of their enrolment in the BDS program. Prior education for 90% of participants involved secondary school; only Aya had previous experience as a post-secondary student (one year at college) prior to entering UBC. Seven participants' parents had earned a post-secondary credential, while three participants had parents with no post-secondary education. Participants noted that their parents with post-secondary education exuded personal pride in this accomplishment which served as motivation for many participants to pursue a university degree. Conversely, Yoon, James, and Lindsay, whose parents did not have post-secondary education, also found motivation to pursue a post-secondary degree and become a first-generation university student to acknowledge the sacrifices that their parents made immigrating to Canada for a better future for their children. Further details, which speak to this motivation, are described in Section 4.3 below.

Most parents expressed an interest and were actively involved in the participants' first year studies. Most parents also displayed an interest in the participants' chosen profession of dental hygiene as it was perceived to be a lucrative profession and noble since the work was positioned within health care. This sentiment is captured by Shora: "[My parents] had always been very supportive of my decision... they thought by going into health care, it's good because I'll be helping other people..." While enrolled at UBC as a first-year student, eight of the 10 participants felt supported by their parents' interest, encouragement, and actions during their education. When asked to provide a detailed example of this parental interest and support, Aya shared:

[My parents] never pressured me into doing any house work, like I would come home from school and if I had any homework to do or any assignments they would just leave me alone and be like “your studies are the most important thing. As long as you finish those and concentrate we're not asking anything else.” So just knowing that I had that support, not having that pressure of always achieving, they never pressured me into getting all straight A's or being at the top, just wanted me to set a goal and be able to achieve that... I would let them know whenever I had a big exam and they would always follow up and say “oh so how did it go?” or “when are you going to find out how you did?” so they were always trying to keep track of everything that was going on.

Additionally, several participants who were struggling in first year chemistry shared that their parents offered to find and pay for a private tutor. Generally, participants expressed that their parents wished to know details of their grades and overall academic progress. Two participants expressed that their parents did not show an interest in their educational experiences while in first year. Both participants attributed this lack of interest to their Asian culture, as expressed by Yoon: “I would say that they [my parents] were passive... it's just their general attitude that I've grown up with, part of the Asian culture.” More information about the perceived influence of the Asian culture is presented in Sections 4.3 and 5.2.

Regarding accommodation, 90% of these former students lived at home with their parents. Only Jessica lived on-campus in a junior student building complex with approximately 500 other first and second year UBC students. These nine commuting former students lived in various areas within the Greater Vancouver Regional District at the time of their enrolment and experienced commute times ranging from 45 minutes to two hours each way on public transit.

Six participants were not employed during their first year studies while four worked part-time up to 10 hours per week. Income earned was mostly directed to help their parents with tuition payments and other school-related fees or towards entertainment and social activities with their peers. All participants classified themselves as being raised

in *middle-class* families whose parents had savings specifically intended for their children's post-secondary education. Total student costs in each of the four years in the BSc program is approximately \$19,000. For four participants, the means to pay for their tuition stemmed from their own savings, their parents' savings, or a combination thereof. Six former students required partial financial assistance through student loans sought through university scholarships or through a financial institution. No one expressed that finances were a barrier to their education at UBC. Despite six participants partially relying on financial aid, no one identified as low socioeconomic status. Due to the high student fees in UBC's Faculty of Dentistry, most students across all programs in the Faculty are encouraged to seek financial assistance through the Bank of Nova Scotia (BNS) that offers low interest rate loans specifically for students in medical and dental programs that do not require repayment until after students graduate. Therefore, a high participation rate exists in BNS's student loan program regardless of students' socioeconomic status.

When asked to identify their culture using their own interpretation of its meaning, 70% of these former students identified as a visible minority belonging to one of the following Asian subgroups: Chinese, Filipino, South Asian, and Vietnamese. Two identified as Western European (British and Scottish), and one identified as mixed (European/Asian). Several participants elaborated when discussing their culture to include values bestowed to them as young children and expressed having a strong sense of family that valued religion and education.

Upon leaving UBC after first year, two participants, Yoon and Lindsay, dropped out from higher education and pursued full-time employment in the financial and insurance sectors while eight former students commenced other post-secondary programs of study at different institutions (transfer-outs). Other programs pursued after leaving UBC included: dental hygiene diploma programs in colleges elsewhere in British Columbia (four participants); an information technology college diploma program (one participant); a business management college diploma program (one participant); a massage therapy degree program (one participant); and a nursing degree program (one participant). All eight former BSc students who pursued education in different post-

secondary institutions were successful in meeting their respective graduation requirements.

4.3 Reasons for Applying to the University and BDSc Program

Six prevalent themes emerged from the narrative accounts regarding reasons they applied to UBC and to the BDSc program: career opportunities, access to graduate education, prestige and status of the university, perceived credibility, family and peer influences, and campus environment. Figure 4 outlines these main themes.



Figure 4. Emerging themes regarding motivating influences for applying to UBC and the BDSc program.

Figure 5 illustrates the most commonly used terms in participants' own language pertaining to the key factors involved in their decision to apply through a word frequency analysis presented in the form of a word cloud.



Figure 5. Participants’ most commonly used words outlining their reasons for applying to UBC and the BDS program.

All 10 former students expressed that they wanted to earn a degree and believed earning a baccalaureate degree in dental hygiene would increase their career opportunities outside of the traditional clinical practice setting. At the time of application to the BDS program, participants seemed to have a strong conviction through their own readings and discussions with dental hygiene students and practicing dental hygienists that a degree would be required to explore career paths outside of the private dental practice. Participants were fully informed that a dental hygiene diploma remained the entry-to-practice credential for dental hygiene in Canada but desired to invest additional time and energy into earning a degree due to their career aspirations.

Although research, public health, and independent practice were mentioned as career options of interest, the strongest interest pertained to teaching. For example, Lindsay commented: “I wanted the degree in dental hygiene because it would lead to more career opportunities for me than a diploma.” Similarly, Ashley stated: “I found that with the degree program, you could move higher. So if I wanted to be a teacher, if I wanted to do something that’s government related... I could probably do something in a master’s program.” Likewise, Kristine expressed:

I wanted to pursue a degree because... I want to work in other areas other than just practicing at a private practice... like research and teaching. When I did some research, I learned that for other areas of dental hygiene... you need a degree so I think for myself having that opportunity and option to go higher was the reason I wanted to pursue a degree over a diploma.

Strongly connected with career aspirations, a second theme to emerge from participants regarding reasons for applying to UBC and the BSc program was access to graduate education. Several participants had a strong interest in pursuing a graduate degree, and most participants wanted that option to be at least available to them. Participants shared the following desires: “A degree would lead to an easier transition to a masters or a PhD... I wanted to keep that door open” (Ashley), and “I could pursue higher education if I wanted to in the future” (James).

The prestige of attending UBC and earning a university degree was another prominent theme that participants explicitly highlighted. Participants often used the following words to describe UBC: top university, well known, reputable, recognizable, and highly ranked. The prestige attached to earning a degree from a top-ranked well known university was noted by all: “UBC is one of the top universities in Canada... and in the world... I wanted to be part of that” (Natasha). “It is a well-known university, who wouldn’t want to go there... being part of the name of UBC” (Shora). “Everyone wants to apply to UBC; everyone dreams about getting accepted... it’s such a prestigious school” (Kristine).

Several participants also shared their belief that finding employment in any practice setting and networking among professionals would be easier for a graduate from a well-known university due to the institution’s reputation. For example, Shora expressed: “... going to a known university... considering future prospects when you try to get a job, they [potential employers] would obviously see that ‘oh, she’s from UBC’ and there’s value in that.” Others similarly stated: “... the recruitment rate [from future employers] for people who have UBC on their resume is probably a lot higher than any

other school” (Ashley) and “UBC also has a good reputation around the world... so it would be easier to find a job” (Lindsay). With regard to networking, Jessica articulated:

Getting into a school and starting my career coming from a strong academic institution... would be the path for me down the road in achieving other goals: furthering my education and making great connections. The stronger and more recognized the school is, it’s my belief that you can make really strong networks.

Everyone felt purpose in working hard investing additional years to earn a dental hygiene degree from a well-known prestigious university in order to realize the personal validation, societal acceptance, and career opportunities that they were seeking.

A sense of pride and perceived credibility attached with earning a dental hygiene degree compared with a dental hygiene diploma also resonated among participants. The undertone that members of society and the profession held those with a higher credential such as a degree in high esteem was prevalent. The former students were proud that they attended UBC and were motivated by the societal recognition and credibility that they perceived the status of a degree to offer ubiquitously. They felt society bestowed those who have earned a degree with additional merit. When describing why they chose a dental hygiene degree, many participants pointed to the perceived lack of credibility and recognition awarded to a dental hygiene diploma. They believed a degree would hold them in higher regard in society. Participants used words such as “settle,” “only,” and “just” to describe their feelings about earning a diploma. For example, Yoon stated: “Others will respect you more with a degree” and Aya expressed: “I felt like a degree defines a successful person I believe in education.” Jessica shared a similar sentiment: “If I’m capable of getting a degree, why would I settle for a diploma?” Kristine, whose parents had emigrated from Vietnam in order to provide their daughter with a better life, also shared:

When you’re applying for a job, a degree counts more I would say than a diploma... it [a degree] is given a higher preference in my opinion... compared with someone who says “oh I have a diploma,” people assume that you tried to go down an easier route and don’t have as much knowledge...

The extent to which participants' decisions to apply to UBC and to earn a baccalaureate degree in dental hygiene was influenced by family and peers were significant and reverberated throughout. Childhood stories about the importance of education featured prominently. Stemming from their parents and secondary school peers, all vividly recalled feelings while they were young about the importance of valuing education to the extent where visualizing themselves at post-secondary university graduates became part of their social norm in their households and part of their pre-written stories for their future selves. Three participants whose parents did not have post-secondary education recalled a strong consistent message from their parents to strive higher, particularly for those families who immigrated to Canada who made significant sacrifices and desired a better future for their children. For example, Kristine shared the following story:

Both of my parents are Vietnamese immigrants. They were born in Vietnam into affluent families... once the Vietnam War broke out, both families lost everything... in Vietnam, [my mother] was able to teach elementary school kids... they immigrated to Vancouver... my Mom ended up getting a job at, it was like a general labour job, she became a bottle sorter at a recycling company... that warehouse actually had a lot of Asian immigrants who didn't know much English.

The financial hardship that some parents experienced served as a strong impetus to pursue higher education to foster a different more lucrative lifestyle. Parents had reaffirmed throughout the primary and secondary school years that attending a well-known university would lead to more rewarding career opportunities. Yoon expressed: "From their [parents] eyes, graduates from UBC were retaining more career options than any other schools." The influence of parents was also prevalent in a comment from Aya: "With pursuing this degree, I would be able to keep my parents happy too." Career aspirations for Kristine also involved influences or pressures from her culture:

Growing up in an Asian household, they [parents] have pretty high standards for their kids. Coming from a family where my parents emigrated from Asia, they

[parents] worked really hard to build a future for their kids that they might not have had.

In thinking back to secondary school, participants recalled that many of their best friends from the lower mainland area were applying to university and many were headed to UBC. There was a strong desire to maintain these friendships as well as some pressure to keep pace with expectations established in early childhood. “Most of my friends were going to UBC from high school so I wanted to go there too” (Lindsay). “Everyone’s [high school peers] main goal was to get to UBC... I wanted to be where everybody else was... seeing all my friends again” (Ashley).

The final theme to emerge regarding motivating reasons for applying was the campus environment. Many participants had the opportunity to visit UBC Vancouver during their secondary school years and described the campus as big, beautiful, gorgeous, and diverse when referring to the building architecture, use of space, greenery and rose gardens, and opportunities to join clubs and meet other students of diverse backgrounds. While in secondary school, most participants had envisioned themselves attending UBC, and this vision and excitement strengthened once participants visited the university in person with family and friends. Participants shared the following sentiments: “...bigger university... beautiful campus... lots of people to meet” (Jessica). “The first time I went to UBC it just looked amazing... like a little micro-community. I wanted to go there after visiting it for the first time” (Ashley). Similarly, Aya shared: “They have everything on campus. They have a good sports team; they also have clubs for me to join, and it’s just very beautiful...” Kristine expressed: “You can find a lot of international students from various cultures.”

Other less prevalent reasons for applying to UBC and to the BSc program that surfaced from some participant accounts included: a desire for more knowledge, income potential, a strive for independence, and self-validation. Two participants were attracted to the four-year dental hygiene degree compared to a three-year diploma as they yearned for the additional knowledge they expected to acquire in a program of longer duration. One participant believed that graduates with a degree would have a higher income

compared to those with a dental hygiene diploma. Jessica applied to UBC as she desired more independence: “spread my wings... move away from home... find my own identity and be independent.” Finally, part of the motivating reasons for applying to UBC for Kristine and Jessica included a search for self-validation. Both expressed that they wanted to prove to themselves and to their loved ones that they were capable of excelling in what was perceived to be a challenging top university. Kristine stated: “I wanted to prove that I can achieve higher learning and prove that I can get into one of the top 20 schools in the world.” Similarly, Jessica said: “I wanted to show that I was capable of achieving anything.”

Expanded career opportunities, access to graduate education, prestige and status of the university, perceived credibility of earning a degree, family and peer influences, and the university campus environment emerged as six main motivating reasons for choosing UBC’s BSc program. Within the interview questions that followed, the former students were then asked to describe their experiences arriving at UBC and during their first and second semesters. The next sections chronologically story their journeys.

4.4 First Semester Themes

Over the course of several interview questions pertaining to experiences in the first semester at UBC, narrative themes that emerged centred on experiences during the arrival at university, disconnection with faculty members, academic under-preparedness, contact with staff and student services, and forming friendships.

4.4.1 Arriving at university.

Participants were asked to share their experiences arriving at UBC and during the first few weeks thereafter. They described a plethora of emotions involved in transitioning to university ranging from feelings of excitement and pride to trepidation, fear, and uncertainty. The experience of arriving at university started well before the official first day of the academic year for two participants. Before arriving to campus in September, Natasha and Kristine recounted their positive experiences of receiving emails from the Faculty of Dentistry’s student services department that included a welcome

letter. The letter outlined an itemized checklist of responsibilities to complete before arrival such as the purchasing of textbooks and obtaining the required immunizations and certification in cardiopulmonary resuscitation. Both former students recalled feeling welcomed and supported by the Faculty even before taking their first step on the point grey campus. They also found great value in joining a student-made UBC dental hygiene Facebook® group comprised of many of their soon-to-be classmates which they admitted to serendipitously stumbling upon but found they were able to make virtual connections with their classmates before meeting on the first day that ultimately helped reduce some apprehension involved with meeting new people. In reference to this Facebook® group, Kristine said: “We were able to establish some connections even before arriving on campus.” Natasha shared:

One of my colleagues posted her schedule [on Facebook] so I had looked at it and I noticed that 'hey like I actually have the same courses as you. Are you in the dental hygiene program?' I messaged her myself. And she's like 'yeah, I can't wait to meet you.'...And then she had mentioned that she knew of another person who was going in the program as well. So we felt great because now we all know some people and we won't be as scared going in.

All participants had articulated an array of emotions when sharing their experiences arriving at UBC in September. Feelings of excitement and fear resonated throughout the responses. Even though many participants had the opportunity to visit UBC during their secondary school years and described the campus as big and beautiful, all 10 former students recalled how overwhelmed and intimidated they felt at the sheer size of the university campus and number of students present during the first few days. Many expressed that the anxiety around meeting new people was exacerbated by feeling lost and uncertain of their physical surroundings. Terms that participants used to describe their first few days after arriving on campus included: excited, overwhelmed, scared, terrified, intimidated, chaotic, huge, and lost. For example, Yoon stated: “The big crowds at UBC overwhelmed me.” Similarly, others said: “UBC seemed so big and overwhelming...that scared me” (Ashley) and “At UBC, I felt like one in a million people there and I was just completely lost” (Jessica).

Comparing the size of the university to high school contributed to their feelings of apprehension. Soraya shared: “Coming from high school we were used to the smaller school and this campus had so many education buildings... it was pretty overwhelming... I got lost going to some of the classes in the first few weeks.” Similarly, Natasha expressed: “The first week was really hard. I really did not know where any of the classes were. We had to pull out our UBC maps and find exactly where we were and where we were supposed to be.” Conversely, James expressed the thrill of a new experience: “I was excited and thrilled to be part of something new” and Kristine shared: “I was excited... a new opportunity to become this better version of myself... looking forward to new experiences and meeting new people.”

While 90% of the participants lived at home with their family during their first year at UBC, Jessica was the only former student interviewed who moved away from home to live on campus in a large junior residence complex. In addition to experiencing these feelings of excitement and intimidation involved with arriving on campus, she also shared her feelings of loss and separation anxiety involved with being away from her family for the first time. When asked what part of arriving to UBC was particularly challenging, Jessica reflected over her first semester and shared:

It was being away from home more so than anything. At the beginning it was great. It was exactly what I wanted. I had my freedom but I still felt close and kind of protected because I was on campus and I didn't live by myself. If I needed anything there were 20 other people on the floor that I could ask. But I don't think I realized how close I was with my family until then and I really really started missing them. I did have separation anxiety... I just powered through the first few weeks of being home sick and people told me it's normal, you're away, you'll get sad. But it was failing my first midterm that was probably the straw that broke the camel's back for me... I just crumbled and felt completely lost and didn't know if I could make it. And then my family came out to visit, my parents came out, and just seeing them made it even harder for me.

To help welcome and orient students to UBC on their first day, UBC has implemented an orientation day titled *Imagine UBC* which provides first-year students with an opportunity to be officially welcomed by the university, to learn about their new academic environment, and to meet new people and make friends. In 2008, the UBC Senate approved that all first-year undergraduate classes of the first Winter semester be cancelled and replaced with *Imagine UBC*'s full day of orientation activities (UBC, 2017). These activities include meeting fellow first-year students who are enrolled in the same faculty or discipline of study in small 20-person groups, called My Undergraduate Group (MUG), meeting their senior student MUG leader, a campus tour, a barbeque lunch, welcome sessions from their faculty, and a 9000-student pep rally involving a welcome message from the president to conclude the day's festivities.

All participants vividly recalled the *Imagine UBC* orientation day which left a positive and meaningful impact. Participants expressed that their MUG leader and the *Imagine UBC* experience helped temporarily curtail feelings of apprehension and fear while facilitating the process of meeting new people and establishing friendships. Participants particularly valued that their MUG leader was a senior student in their discipline or program of study who could offer suggestions for success. The following quotations illustrate how participants also appreciated being assigned into small groups comprising fellow students with whom they would share classes.

The Imagine UBC Day really helped because I got to meet everyone that was in my class and went on the tours with all of them and just being with them that first day really helped connect all of us. And then that made it easier for the next few days especially weeks... I felt connected and started to create bonds and it [Imagine UBC] just made it more comfortable for us to be with each other in the classes. (Soraya)

The number of people overwhelmed me... but once I actually met our MUG student leader for orientation day, I felt more at peace just because I began to know everyone in my small group and had nothing to fear from introducing myself. (Yoon)

It was really nice having the small groups of dental hygiene students on the first orientation day... easy to make new friends... promoted bonding because you're going to be with these people for the next four years... so we all felt like we were going to be close... (Ashley)

Generally, these former students found great value in the *Imagine UBC* orientation event. However, in the weeks that followed, participants confronted many challenges adjusting to their academic environment. These experiences are storied in the sections that follow.

4.4.2 Disconnection with faculty members.

Even though the *Imagine UBC* orientation day was an extremely well received experience, after this one day of festivities was complete and once participants began to attend to their academic responsibilities over the first few days and weeks, the theme that cut across all of the former students' accounts was the difficulties experienced connecting with faculty members. The former students also expressed overwhelming sentiment towards their discomfort in the large general studies classes in Chemistry, Biology, Psychology, and English, often encompassing hundreds of first-year students. They described how such an environment was not conducive for their learning. Such classroom environments made learning challenging as there were limited opportunities to engage and interact with their professors. In addition, asking questions in class was often too intimidating. Participants attributed their hesitation behind asking questions to the fear of being judged in a public setting and the perception by others that their questions may be unintelligent.

Referring to these general studies courses, which comprise most of the first-year courses in the BDS program, participants shared their in-class challenges of this new learning environment. Yoon stated: "I didn't really interact with faculty... in class... I didn't ask questions... because I didn't want to seem like I was a really confused student... or way behind or kind of slow."

If you missed something in class, it would be more intimidating to put your hand up to ask a question... in a class of 400 students rather than just in a class with 30 people... if you miss notes and then you want your professor to go back to the previous slide, you don't want to be that one person holding the class back... speaking out in a classroom with hundreds of students is kind of scary. (Kristine)

In a class of 200 or 300 and you asking a question, what if it was something very obvious? I didn't want to raise my hand for that reason... I guess it was fear of not being able to keep up... and everyone knowing. (Ashley)

Many participants articulated that they were attending a prestigious university and did not want to appear as *stupid*. For example, James explained: "As a student, you wonder if your question is stupid... I didn't want to burden the whole class, having 200 people listen to me ask a question."

Associated with these large class sizes came a disconnect that the former students felt between themselves and their professors. Most shared that they felt their professors in these large classes were neither accessible nor interested in their learning. Soraya and James shared that they felt like just a number in the large general studies courses:

It's different from high school where, you know, there are 30 students in a class and the instructor actually knows who you are by name whereas this is a bigger class and they [professors] don't really know you, they just know you as a number... there are just way too many students. (Soraya)

There's a lack of connection...going to a professor who has 200 students... they're busy and you can see that. They also appear to have other things on their plate. I don't want to inconvenience them... I felt more like a number... even when I would email back and forth, they didn't respond... it didn't really matter to them. (James)

There were some professors that I found really didn't care... didn't really have a welcoming presence... I mean having the professor not engage or be responsive to us but just lecture to a large audience is not so welcoming. (Natasha)

Aya articulated her surprise in hearing threatening fearful messages from a professor and outlined her desire and expectation for a professor to offer more positive encouragement:

The professor was constantly reminding us that 'you need 60% and if you don't pass then that's it, you're gone'.... it was very discouraging for me... for someone to tell me that... you're going to fail... instead of taking the positive and being like 'hey how can I help you to achieve better'... it instilled fear in many of us.

Some participants found approaching the professor after class challenging as they perceived the professor to be eager to leave class or due to the number of students who wanted the professor's attention after class. There would often be long lines. James stated: "The professors always seemed rushed. They were pretty much packing up and ready to jump out after class... they didn't seem approachable... I didn't feel comfortable at all." Similarly, Lindsay said: "It was too intimidating to approach the professor and when I wanted to after class there were either large lines of students already waiting or I had to rush off to another class."

Four participants shared that their professors would often defer to their graduate student teaching assistant (TA) which further reinforced the feeling that their professor was disinterested in their learning. To this effect, Natasha shared: "The professors in the other [non-dentistry] courses mentioned that the TAs were available for us... I felt like I wasn't getting much support from the professor." Expressing a similar sentiment, Jessica stated: "I went for help, I would go into the office... I would email questions... and the prof said 'talk to your TA, you need to meet with her.'"

Three participants stated that their professors published office hours during which students could approach them to seek assistance. However, they expressed that office hours often conflicted with their class schedules and, when they were able to attend, they

often experienced long lines, making their professors inaccessible during these reserved times.

In high school, the teachers... make themselves available more for you to go and ask them for help. They're very welcoming. Whereas professors just give you office hours... come if you want and if you don't then it's your fault... they should be supportive and available... and let you know that they are there to help. (Aya)

...for English and biology class I remember we used to have hundreds of students in a huge auditorium... it was very hard for me to learn in such a big classroom because I feel like the professor just comes and leaves whereas there's not time for questions and answers or even one-on-one during office hours there's always such a huge line up for you to go see the professor and sometimes students have classes in those times so they can't even attend the office hours... (Ashley)

When Shora was asked to explain why having a connection with a faculty member is important, she shared an experience in a large class of over 200 students and explained how having a caring professor can be motivating for students:

...we tried to contact the professor... it was just through email...that was hard... I feel like when you have the professor's actual attention, he actually knows you, like what kind of a student you are rather than based on you're a blank face,... he doesn't even know you. You're just a student number in his class. I just felt like having that personal connection with the professor... is better overall in general for learning... you're being recognized personally... that makes you feel good and motivated... because they actually care.

Surprisingly, no positive accounts of interactions with professors surfaced from participants' first semester experiences. Positive experiences with faculty members did emerge in the second semester and are highlighted in the next chapter. In addition to challenges connecting with faculty members in the first semester, these former students

also shared their culture shock of transitioning to the new expectations placed upon them as adult learners.

4.4.3 Academic under-preparedness.

When describing their experiences in these large classroom environments and outlining the difficulties involved in connecting with their professors, all 10 participants also detailed the challenges they confronted in transitioning from secondary school to the university culture of learning. Comparing their academic expectations, method of learning, and instructor assistance received in high school, this new learning environment at UBC came as a culture shock. Eight participants expressed that they experienced a more independent learning environment in which students at UBC were held more responsible and accountable for their decisions. The workload that participants' experienced outside of classroom time was also significantly greater than what they were accustomed to receiving in high school. These former students also discussed that the method of learning moved away from the rote memorization of material and towards its understanding and application. The resonant thread across the stories shared was a feeling of unpreparedness for the academic expectations placed upon university students.

With regard to the independent learning environment experienced at UBC and comparing this experience to high school, participants recall receiving excessive attention from their high school teachers. Many expressed feeling babied or coddled in high school. Facilitated by the small classroom environment, their high school teachers were able to provide highly individualized and frequent feedback. Although valued at the time, participants shared that these high school experiences poorly prepared them for learning in a larger classroom environment in which university students are expected to take more responsibility for their own education. As a result, adjusting to the large classes and more independent learning was a significant challenge for Soraya, James, and others. Natasha felt that: "... in high school, we were kind of a little bit babied... material was just given to me, and I could just memorize it..."

I even remember our high school teachers saying to us that ‘we’re basically spoon feeding you but when you’re at university, that won’t happen anymore.’ The study style had to change... I was really frustrated... trying to do all these practice questions on my own and trying to teach myself... in high school, I had a teacher who would help me more. (Soraya)

At UBC you take on more responsibility, you’re accountable for showing up... because I felt in high school sometimes the teachers babied you and made you attend and if you weren’t in class they would call your parents... but here [UBC] it was totally up to you as a student to go get help or go attend the tutorials or review your exams... whereas in high school, the teachers would approach you. (Jessica)

In high school I remember the teacher always checking to make sure we’ve done our work... at university you’re meant to be more independent... I think for any first year student,... it’s much more student-led... you have the textbooks but they [professors] are not going to ask if you have done your readings or practice questions... that’s up to the student. (James)

Yoon described how the coddling she experienced in high school resulted in her dependency on her teachers’ praise or frequent feedback and consequently did not prepare her for the expectations and responsibilities of a university student:

In high school I was very used to weekly validation. When I hand in an assignment I would get feedback right away. There’s time to process my mistakes and ask for help. The teachers are always available... even for small assignments, they [high school teachers] would explain my mark... it made me feel good... and because of that, I was not educated on self-learning... After high school I knew I was going to be on my own. I was in charge of my own education once I left high school but I really didn’t know what that looked like... how am I going to know what mistakes I’m going to make and how am I going to know right away... if I was reading a textbook and I was misinterpreting everything... I wouldn’t know... because there was no weekly assignment or feedback. (Yoon)

In addition to a more independent learning environment for which participants felt unprepared, many expressed that the student workload was significantly higher than what was experienced in high school and the method of learning was substantially different. With regard to the quantity of work and adapting to the pace of the classes, participants shared:

The first few weeks you realize that every lecture is quite heavy and if you miss a lecture you miss a lot... they [professors] don't post the notes online, so if you miss something or didn't write something down, you're missing valuable information... it's really fast... it was hard to process what they were saying, I wasn't use to that. (Kristine)

There was a difference from high school where it would be okay if you didn't go over your notes every few days or after every class; you could get away with it and just do it all when it came close to an exam... whereas in university, you had to keep on top of things otherwise it gets too overwhelming when it comes to the end because there's way more information. (Soraya)

My biggest struggles were the heavy load of academics... learning how to self-learn is pretty hard when you're used to doing something a certain way and you're getting good results out of that and then it doesn't translate well into university. (Shora)

Finally, participants expressed that the method of learning experienced in high school, to which many referred to as simply memorization, also did not prepare them adequately for university. They described the outcome of learning not to be simply the recall of information that many experienced in high school but rather towards its understanding and application as experienced in university. Participants had to adopt a different learning style.

In high school, the teacher gives you notes and you know that is what you're going to be tested on. You can study for an hour or the day before your exam and still do well. Whereas in university, they [professors] give you your readings and

you have to do that reading every single day beyond what you're given in class. I think a lot of first years don't do that. (Aya)

I think coming into university, one of the biggest things you have to learn is learning on your own and for me I guess coming out of high school where I was used to doing well, I feel like I had to teach myself how to learn differently and more efficiently because obviously what I was doing in high school the way I was learning wasn't good enough for university... like for biology, back in high school it was just good to memorize everything and then you could just rewrite all of that back... I was pretty good at memorizing but then when I got to university the questions that they ask you on the exams are not straight from the textbook. You have to really apply what you learned and explain what would happen in this situation or that situation. I think that really pushed me to try to really learn the subject in a different way... you can't just memorize and then rewrite what you learned. You have to take a different approach. (Kristine)

Although not a theme across the stories shared, feeling unprepared for her coursework at UBC, Natasha articulated that she struggled in some courses at UBC because she had not been previously exposed to learning in similar subject areas in high school:

I really feel like the reason I didn't do well in some of these courses is because I wasn't exposed to these courses beforehand. For example, I hadn't taken any psychology courses in high school... I didn't know what approach to take for the course. I didn't know what kind of questions to ask or questions that would be asked of me.

These accounts highlight participants' challenges with independent learning, workload, and method of learning at UBC during the first semester. The resonant overarching theme that emerged across the stories was the level of academic under-preparedness that these former students experienced in their transition from high school to the university culture of learning.

4.4.4 Contact with staff and support services.

Participants were asked about their level of contact with various staff members in the Faculty of Dentistry and within the university as well as the extent to which they utilized the student support services available. There were mixed experiences that emerged. While three participants felt supported by the student services department in the Faculty from its manager or its Advisor program, most had minimal or no contact with staff and student services. The predominant reason for this minimal contact for many appeared to be a lack of awareness of the support services available and its purpose.

As previously stated, Natasha and Kristine recalled their positive experiences of receiving emails and a welcome letter from the Faculty of Dentistry's student services department before the academic term commenced. In addition, Soraya had expressed that she felt quite welcomed upon arrival to UBC by the Faculty's student services manager: "She [manager] always made us feel welcomed... would send emails saying 'I'm here for you if you ever need anything you can always come to my office.'" Ashley was also aware of the student services department and had approached the manager for advice regarding receiving academic support; however, she noted that her conversation with the manager was not helpful: "She [manager] never referred me to any support groups... she would just tell me to step it up... I just wanted to know what my next step should be..."

Natasha and Kristine also expressed their gratitude for the student services' Advisor Program which assigns students to a specific faculty member in the BDS_c program who is asked to meet with their assigned students outside of the classroom setting at least once per semester. Natasha shared: "We did have some faculty meet with us... showing that they wanted to talk to us was really helpful; it made me feel like these people actually really do care about us." Kristine spoke positively about her experience with her faculty advisor but suggested that individual meetings rather than group meetings would be more beneficial:

She [faculty advisor] took us out for lunch... to see if we have any concerns... that was pretty helpful but... in a group... some students might have felt intimidated sharing more personal struggles... talking to students one-on-one,

they [students] might share more than they would have at our lunches in front of other students.

Conversely, other participants stated that they had no contact with staff or student services as either no effort was made to contact students or because of levels of discomfort sharing personal information with someone unfamiliar. Aya said: “I didn’t talk to any staff members; none of them really reached out to me.” In discussing some of her personal struggles at home with her boyfriend, Kristine shared: “I just felt really withdrawn... I didn’t feel like I was close enough to anyone in the staff or faculty to actually bring up these internal issues.”

Four participants explicitly expressed that they did not reach out to staff or student services as they were unsure of what support the department provided. For example, when asked if she used the Faculty of Dentistry’s student services department to seek help or support, Yoon stated: “Not really because I didn’t know what they offered besides administrative support such as collecting the school fees and signing waivers and just getting signed up for next term’s classes.” Yoon also added that she felt it inappropriate to incorporate personal concerns into discussions with academic personnel: “I think that just the boundary of academic and personal lives... that boundary... you know, whatever happens within your own life, you keep it separate from your professional world...”

Despite having a brief orientation session facilitated by the student services manager during the first week of school, half of the participants expressed they were unaware as they did not recall being informed of the student support resources offered with the Faculty of Dentistry and within the university. When asked if they used the Faculty of Dentistry’s or university’s student services resources, Aya responded: “No, I didn’t know about it so... I didn’t make use of it... I don’t remember any tutoring services... That never crossed my mind that I could get help from outside of the Faculty.” Similarly, James shared: “I didn’t know there were counselling options... so I didn’t pay attention to them.” While Ashely also shared:

I really wasn't sure if there were any support services; I didn't know what existed... we just felt like we needed that extra support and we didn't know where to go to look for it... We didn't know what kinds of services were available.

Jessica indicated that had she known of what support services were available, she would have accessed them:

I didn't know much about the resources within dental hygiene or the Faculty of Dentistry... Looking back, if I had known there were other support services available that were free, that would have been amazing.

Regarding her personal relationship challenges at that time, Kristine expressed that even though she did not feel sufficiently close to staff or faculty to disclose her personal struggles, she would have reached out to the UBC counselling department for help if she had been aware of these professional services:

I did want to let someone know what I was going through... I think if I just had someone to talk to and I guess release all the stress I was going through... I think that would have helped a lot... If I knew back then that there were support services like counselling, I think I would have been inclined to go to them because I really did just want someone to talk to...

The sources of support that participants did use primarily involved their friends, family, and community networks such as their religious affiliations. Kristine and Jessica sought support primarily from friends and family: "While I was a UBC student, I didn't use any support services inside or outside of UBC... but my friends... they were there for me" (Kristine). Jessica stated: "I started talking to my family quite a bit more and that made it easier because I knew they wanted me to do well... they were cheering me on... just made it a lot easier to stay focused." James was actively involved in his church community for spiritual and emotional support:

I turned to my church for prayer and a lot of advice, almost parental advice because... I needed some guidance from some people who I looked highly upon and they gave me the spiritual emotional advice that I needed to be able to continue and persevere for the rest of the term and life in general.

Notably absent from participants' accounts were their reaching out to dental hygiene faculty members for support. Aside from two participants who appreciated the efforts of the student services' Advisor Program, these former students did not approach their professors within the Faculty of Dentistry nor the university at large for support.

4.4.5 Forming friendships.

Participants were asked how they met people at UBC in their first semester and how they developed friendships. Even though these former students maintained friendships that were carried forward from high school, all 10 participants stated that their closest relationships consisted of the new circle of friends they established within their dental hygiene cohort in the Faculty of Dentistry. These dental hygiene friendships developed due to the significant amount of time spent together during orientation, within classes, and breaks between classes. Belonging to a small cohort of first year dental hygiene students, participants ultimately sought solace in each other's presence within a much larger and foreign first-year student body in the general studies courses that dominated their first semester academic schedules. For Natasha and Kristine, connecting through a student-created Facebook page started the process of bonding to several classmates before the academic year commenced. For most participants however, experiences that facilitated the development of friendships included the *Imagine UBC* orientation day, commuting on public transit, having classmates with similar interests and from similar cultures, and forming academic learning communities (see Figure 6).

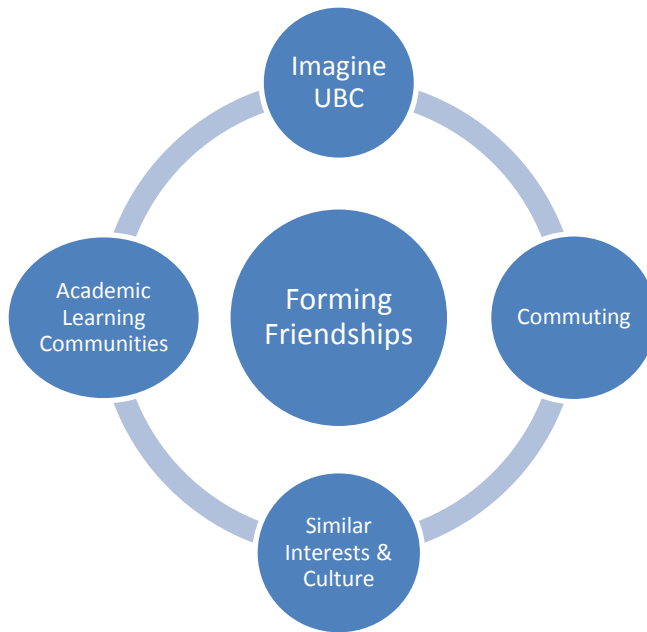


Figure 6. Student experiences that facilitated the development of friendships.

Ashley, James, and many others deemed that the friendships formed at UBC were critically important to their first year experience as these relationships helped establish a feeling of community and sense of belonging. This sentiment is captured within the following excerpts:

It was nice to have others to relate to, to have a common struggle and then to be able to relax and study together. It was quite helpful to have them [friends] around. They were quite important to my life... once you go to university, amongst thousands and thousands of other students, being able to have a close group of friends, it was nice to have people to share all my emotions with... I did take solace in that. (Ashley)

In first year, everything is new, you want to build your identity... and also do things you enjoy doing with other people... you want to meet people who have the same interests... it's all about community and about building relationships. I remember first year at the beginning, it was a struggle not knowing that many people, and I even felt quite alone and so doing things with other people seemed to fill that gap and that hole. (James)

Four participants shared that the *Imagine UBC* orientation program for first-year students facilitated the process of meeting new people and establishing friendships. Arriving on campus with thousands of students was greeted by intimidation and uncertainty but having smaller groups of students in the same discipline of study with whom the first day on campus was spent together allowed for conversations to unfold and similarities to surface in a safer environment.

Natasha shared: “On the first day of classes, I didn’t really know anybody so it was hard to communicate with anybody... I found myself looking towards the people who were in my little MUG group for orientation day.” Aya reflected:

The first friend I made at UBC was in my group for the *Imagine Day*... we exchanged phone numbers and we decided that the first day of classes we would meet up... and attend the first class together. From there, she introduced me to other people who were in our program and that’s how our group of friends started.

Three participants indicated that the long commutes on public transit also helped facilitate friendships with peers in the same classes through conversing over elongated periods of time shared together on the bus.

I found that I made friends with people in my class who had to commute to school and commute back so those were the students who I actually connected more with because I took that extra 40 minutes on the bus with them that I could actually talk with them and get to know them better and found that they were actually quite similar to me. (Natasha)

I made friends while commuting to and from campus... it was easy to be friends with my classmates on the bus we would chat for two hours on the way there [to UBC] and two hours on the way back. (Ashley)

Six participants expressed that they maintained contact with their friends from high school who were also entering UBC, particularly during the first several weeks. Shora shared: “... I did have friends from my high school at UBC... the first few weeks I would just be mostly with them.” Similarly, Ashley stated: “I did maintain friends with

everyone from high school...we would see each other on the weekends..." When asked why maintaining these high school friendships were important, she replied: "Because I have a history with them... they definitely knew me better versus some of the girls that I had just met... I was able to completely be myself around them and that was really nice" (Ashley).

Even though participants kept in touch with their high school friends, this contact progressively decreased as they spent more time with their new peers in the dental hygiene program. Natasha recalled: "I drifted away from my friends in high school and towards the friends I was making in the dental hygiene program because we spent so much time together."

When participants were asked to describe the process of how their new friendships developed from the cohort of students within the dental hygiene program, they indicated that they looked for other students with similar interests, study habits, and cultural backgrounds. Ashley noted: "I looked for people who had the same interests or had similar experiences in high school." Jessica, who resided on campus, recollected that her closest friendships in dental hygiene first developed through connecting with those who shared similar academic challenges:

My two closest friends in the program... we kind of all started out studying on our own and then we found ourselves all struggling in the same areas or all stressed out about the same tests so it just made sense to study together... and I think we all came out feeling more confident by helping each other.

However, culture, in particular, appeared to be a common thread that connected new students together facilitated through feelings of familiarity and a sense of belonging.

I found that my group of friends that I had made, I just connected with them,... we had similarities... it was a little bit of a culture kind of thing, me being Chinese for example, my friends were Chinese as well so I could connect with them on that level... I guess it's just that I felt more close to them, being of the same culture... it felt more close to home... (Natasha)

I really wanted to make more friends that had come from the same background and the same culture... I just feel like we have a lot in common and it just brings me back to having a connection with my roots and just knowing that the celebrations I do at home I know that someone else can relate to on campus... It feels like home... close to where you come from... I felt like I needed to have that connection. (Aya)

Interestingly, Jessica, who described herself to be western European recalled how stemming from a different culture created a barrier to forming friendships with some Asian classmates:

It [making friends] was daunting. I didn't know anyone... there's a lot of people of Asian ethnicity and I felt intimidated... there's a lot of Asian people in Vancouver and in my class... coming from a small town we have very little multiculturalism so that was my norm... with making friends in the class, some of the Asian students spoke their language to each other and that really closed off or put up a barrier for me.... I felt that they didn't have an interest making friends with me because if they did they would have spoken English to me, which they didn't.

Jessica was the only participant interviewed who resided on campus. She explained how making friends was particularly difficult because she lived on campus and most of her dental hygiene classmates did not. She found that the academic demands of the program interfered with her ability to sustain friendships with those living in her campus residence.

I found it quite hard to make friends because a lot of people lived off campus... after class people [dental hygiene peers] would just go home... I found the program [dental hygiene] quite demanding academically... I would not have much free time to do social stuff... I would stay in my dorm room to do homework and that led to some of my friendships in residence breaking off.... that left me in a hard place. (Jessica)

The most prevalent emergent theme regarding the development of close relationships was the friendships that strengthened through forming academic learning communities. In particular, all 10 participants had expressed that they greatly valued most their dental hygiene cohort being placed in the same general studies courses together in the first semester such as Biology, Chemistry, English, and Psychology. As previously discussed, these general foundational first-year classes encompassed hundreds of students. The former students had expressed that these large class sizes did not foster a safe environment conducive for learning. As a result, participants shared that they bonded together in these large classes, often saved seats and sat next to one another, shared notes, and formed study groups together as a dental hygiene cohort during their common breaks. Time spent in these informal academic learning communities resulted in stronger friendships and, reciprocally, the growing friendships formed through these classroom experiences further strengthened these learning communities.

Natasha, Yoon, Ashley, and many others strongly expressed that they relied on each other in the large classes and felt supported through the establishment of these student-led learning communities in which they found friendships, academic assistance, encouragement, and a sense of belonging. For example, Natasha shared: “In the large classes, all of the dental hygiene students, we all sat together... I felt connected with everyone because we all wanted to stick as one...” Yoon and Ashley similarly commented:

... anytime that we were in a different class mixed with students from other faculties, we would sit together... for support and also because it was familiar... we just knew each other since that first day and we could depend on each other for study notes and just someone to talk to... because when you have a class of 600 people you just don't know who to sit with so we just made a pact to save each other seats. (Yoon)

I couldn't raise my hand to ask the teacher a question in class, but I could ask my [dental hygiene] friends in that class... We would work together on homework...

quite often. We all had the same breaks... we would sit together and stay on campus and work together. (Ashley)

Interestingly, while Natasha valued sitting with her classmates in the larger classes in first semester, she also expressed a potential negative outcome associated with these academic learning communities within her dental hygiene cohort. Natasha felt that these learning communities may have unintentionally isolated her dental hygiene cohort from students in other programs: “I felt that because we always came in as a group, it wasn’t very welcoming to other students who may have wanted to be friends with us.”

In addition to the *Imagine UBC* orientation day, time spent commuting on public transit, maintaining bonds with high school friends, connecting with students in dental hygiene with similar interests and from similar cultures, these academic learning communities served as a mechanism through which strong friendships were formed and sustained throughout the first semester.

4.4.6 Summary of first semester themes.

Over the course of the first semester, these former students articulated their difficulties transitioning to the culture of learning at UBC. While the *Imagine UBC* orientation day was regarded as a warm welcome to the campus that was well received, the days and weeks that followed were accompanied by emotional and academic challenges. Arriving on campus resulted in a diverse display of feelings from excitement to fear. The greatest challenges that surfaced pertained to engaging in the new learning environment involving extremely large class sizes in the general studies courses and feeling disconnected with faculty members in these large classes. Academic challenges also seemed to be focused around the transition from secondary school and the guidance provided from previous teachers to that of a university schedule, course work regime, and expectations of independent learning placed upon university students. Participants discussed feeling academically under-prepared. Most participants had little contact with staff and student services and attributed this minimal contact to a lack of awareness of what support services were available and for what purpose. Establishing close friendships was deemed to be critically important to their academic and social well-being, and all

former students articulated that their closest relationships emerged from within their new dental hygiene cohort. Connecting with other students who had similar interests and forming academic learning communities facilitated a sense of belonging to the university and aided participants' journey through their academic challenges.

Chapter 5. Second Semester Experiences

5.1 Introduction

The previous chapter storied the journey of 10 former first-year UBC students as they entered university and transitioned into their first semester. This chapter continues the narrative by exploring their experiences in their second and final semester. More specifically, participants discuss the experiences they believed hindered their academic success and offer suggestions to improve the first-year student experience in UBC's BDSc program, helping answer my research questions.

5.2 Second Semester Themes

When participants were asked to discuss their experiences in the second semester of their first year and to describe how these experiences may have been different compared to the first semester, emerging themes included: growing accustomed to the learning environment and academic expectations, relevancy of learning, connection with dental hygiene faculty members, social activities, and institutional commitment to student welfare. Even though some of the challenges regarding large class sizes in the general studies courses remained prevalent in the second semester, participants felt more integrated to the Faculty of Dentistry in the second semester compared to the first.

5.2.1 Growing accustomed.

All 10 former students had expressed that they felt more aware and comfortable with their learning spaces on campus, more accustomed and acclimatized to the academic expectations placed on students, and they adjusted their study habits after receiving poor grades in their first semester. In their second semester, these students also felt more comfortable navigating within the large campus to classes and popular studying and eating venues. Being more familiar with the campus and the various learning and social spaces provided participants more time to relax, socialize, and study.

I remember in first term because UBC is such a big place I printed out the map of the campus and I would highlight my routes cause I got lost pretty easily. Coming

into term two, I knew where to go... where to get food... and not get lost.
(Kristine)

We focused a lot more on school because in that first semester... we took a lot of time just exploring the campus... but then by term two, we knew where we liked to study and... where we liked to eat... I didn't have to waste time finding where my classes were or trying not to be lost all the time... (Ashley).

Many commented that they felt more aware of the academic expectations placed upon them with regard to the pace and size of the classes outside of the Faculty of Dentistry as well as more acclimatized to the expectations regarding teaching expectations and learning style. They felt more adjusted to learning independently. Yoon, Shora, Lindsay, and others who entered UBC directly from high school felt their level of familiarity regarding expectations at university became clearer in the second semester. For example, with regard to growing accustomed, Yoon shared: "I knew how the professors were going to present the material, so I knew more what to expect in each class." Similarly, Shora and Lindsay expressed:

I felt more comfortable being in the huge very different environment... I was more relaxed... I knew how these classes go, how the grading went... I managed my time better on that... term one was overwhelming to be in such a huge class, but then in term two... I got used to it. (Shora)

I felt more comfortable entering term two because I knew what to expect from each class... I knew better how much time was required to study for each course, it was less of a culture shock than entering term one. (Lindsay)

Natasha, who had a lengthy commutes like others, preferred her academic schedule in the second semester due to fewer early morning class start times. She stated:

Term two I didn't find as stressful as term one. I think I was more used to having large classes and their pace... we didn't have too many early classes anymore so I did have more time to sleep in and wake up at a time where I was more functional.

Shora, James, and others expressed that after receiving their low first semester grades, often having failed one or two courses, they started to change their study habits to proactively prevent a repeated outcome in the second semester. To the point above about adjusting their learning style, many participants began to recognize the need to invest consistent time in their reviewing of materials, to start their review earlier in the term, and to review in greater depth to move beyond recalling information and towards its understanding.

I had mistakes in the first term, and I corrected them in term two... like not wasting time. I just realized how much time I can spend on studying... and not leave things to the last minute like I can use my weekend hours... for the finals I studied like a month before. (Shora)

I did have decent marks in the second term. I think there was a shift in my thinking and studying from just purely memorizing to actually trying to understand the concepts better... I would ask myself questions while studying... I knew that I had to work harder in second term. (James)

In addition to adjustments made to their approaches to learning independently, participants also found the content of the coursework to be more relevant and applicable in the second semester.

5.2.2 Relevancy of learning.

The first semester in the BDS program involves students enrolling in general studies courses within the Faculties of Science and Arts such as Biology, Chemistry, English, and Psychology. In their second semester, students not only enroll in the second half of Biology, English, and Psychology but they also register in two dental hygiene-specific courses within the Faculty of Dentistry. The first of these dental hygiene courses is *Oral Health Sciences I*, in which students learn about dental anatomy, dental histology, and oral embryology. In the second course, *Dental Hygiene Theory and Practice I*, students learn about the roles and responsibilities of dental hygienists in a variety of practice settings (private clinic, public health, industry, administration, education, and

research), the profession's code of ethics, ethical dilemmas, the dental hygiene competencies, and concepts of professionalism and professionalization. Within this latter course, students also learn about infection control procedures, and they enter the UBC dental clinic for the first time to practice opening and closing a dental operator applying their infection control knowledge.

Eight former students expressed that they were significantly more excited and motivated to learn in the second semester because they found the coursework to be more interesting and relevant to their chosen profession. Some expressed frustration in having to wait until the second semester to enroll in dental hygiene courses. Their studies became more meaningful since their experiences in dental-related coursework facilitated their feelings of integration and purpose within the Faculty; they could envision themselves developing into health professionals. For example, Natasha shared:

As for the dental hygiene courses... I felt that I was more engaged in them because they were pertaining to my profession... the theory and practice course put me in the mindset of this is what I'm actually going to be doing as a dental hygienist. The dental anatomy course excited me because we were actually learning about teeth... I felt more like I wanted to be in this program... learning about material that I felt I would use later on encouraged me to do well... I wanted to study more to make sure that I did well... I felt like I was more of a dental hygiene student versus a general student at UBC.

Ashley and others also felt more engaged in their learning and motivated to learn due to the courses' relevancy and applicability. Ashley stated:

It was exciting to learn... just knowing that everything I was reading was going to be very useful to my career and it was going to be knowledge that I would be using for a long time in the future... I would be able to focus a lot longer when studying... It was exciting to learn.

Jessica was struggling to feel engaged with the university in the first semester despite living on campus. She missed her family in Calgary dearly and shared that her engagement and joy of learning increased in the second semester due to the dental hygiene courses. Jessica expressed:

Getting into the actual dental hygiene courses was super exciting... studying what I wanted to do for the rest of my career... studying seemed not so much of a chore but more interesting... which meant I put more effort into it... I actually looked forward to studying because I wanted to learn.

These positive learning experiences, related to the content of material introduced in the second semester, were intensified by the development of closer relationships with faculty members.

5.2.3 Connection with dental hygiene faculty members.

Nine of the ten participants described their learning experiences in the second semester to be more positive, comfortable, and motivational. Feelings of adjustment were attributed not only to the relevancy of the academic material but also the connection they were developing with faculty members in the Faculty of Dentistry. The primary reasons that emerged to explain these feelings of connection and integration to the faculty included: the smaller class sizes in the dental hygiene courses, learning within the physical confines of dental building more frequently, and receiving caring supportive messages from their dental hygiene professors.

Nine former students felt strongly that having small classes created a safer learning environment in which they could partake in class discussions more freely and connect with their professors. Yoon, like most others who entered UBC directly from high school, felt more comfortable in the smaller classes. The learning environment was more comparable to what had been experienced in high school, and students felt valued. Yoon shared:

The small class sizes really made me feel valued because they [dental hygiene professors] actually did want to know who I am... I idolized them... their

achievements... getting to know them better propelled me to study smarter...
you're working with professionals in the field who are at the top of their field.

Aya, who was the only former student to have experienced post-secondary education (one year of general sciences at Kwantlen University), expressed a similar sentiment:

I felt comfortable approaching the professors in the dental faculty as compared to the ones that were in the larger classes... I feel like the professors in Dentistry knew me better... I had the one-on-one interaction with them in class. And I just felt like if you know someone better it's very easy to just go up to them and ask them a question.

Feeling connected and safe in the presence of their professors resulted in students' increased propensity to ask questions in class and approach their professor for additional assistance. Ashley summarized this feeling by sharing:

It was very easy to get to know them [dental hygiene professors]... because of the smaller class, we all knew each other, we weren't afraid to ask questions. There was more group interaction rather than the teacher teaching us one thing and us just taking notes. There was more discussion every class... and the teacher had no trouble knowing us by first name basis. I think that's what the difference was between the dental hygiene classes and some of our bigger classes.

These students also stated that they enjoyed spending more time within the dental building. Crossing paths with other students and professors in the hallways and having classes in the dental building strengthened their feelings of integration and sense of belonging to the Faculty of Dentistry. Interacting more with faculty outside of the classroom setting, even a brief passing in the hallways, would help facilitate feelings of safety within the classroom. Feeling part of a community was particularly important for Jessica who was living away from home for the first time and had experienced some difficulty with establishing friendships. Jessica shared:

The more I was in the dental building, I saw them [dental hygiene professors] just in the hallways which made it more personal because they would say 'hi' or

recognize you... I think it helped me because I could sense that they cared... so I felt more comfortable participating in class discussions in those specific dental hygiene classes. I felt safe asking questions in those smaller classes.

Yoon also shared that learning more in the dental building helped her establish a sense of belonging in the Faculty:

I was just pretty excited to be taking classes in the dental building. It decreased my first term stress of moving around so much... it felt good to start to put my roots down... It just made me very excited that I can actually see more of my peers, upper class peers, and also some of the professors teaching the dental students that I wanted to network with... we were not so segregated anymore but like we're kind of our own little family.

Natasha, Shora, and others also felt it important that their professors knew them personally and that they perceived their professors to care about their students' success. They recalled that the dental hygiene professors would consistently deliver messages of support in class by repeatedly asking if students understood the material and to approach them for clarification. Many felt supported by their dental hygiene professors and noted that the connection that resulted proved motivating, encouraged participation in class, and improved faculty approachability. For example, Natasha expressed: "For the dental hygiene course..., I felt that the professor cared. He said that he was always available and if you needed help just come talk." Similarly, Shora shared:

I remember in term one... the professor... you don't want to say anything dumb... but then you actually realize that they [professors] are actually there for you for help... I knew eventually that there is no such thing as a dumb question... so I guess I came over that when I began to know my professors more.

When asked why it is important for students to know that their professors care about their success, Aya drew from her experiences interacting with her instructors at Kwantlen University and shared that such feelings provide comfort: "I just feel it helps you do better... it makes me feel comfortable. It makes me happy to know that I can

easily approach them whenever I want to.” In addition to seeking support and motivation from her family in Calgary, Jessica felt that professors who cared served as additional motivation: “If they [professors] care and want me to be engaged then that has a natural feel or a pull from me to want to be engaged... it makes me want to learn more...”

Even though nine participants discussed their developing connections with the dental hygiene faculty and peers as well as their heightened feelings of integration with the Faculty of Dentistry in the second semester, Aya described how she isolated herself from her peers and faculty members. With longer term aspirations of becoming a physician, she described feeling ashamed and embarrassed as a result of her poor academic performance in the first semester. Overcome by shame, Aya outlined how she desired to be left alone:

I felt like they [dental hygiene professors] were starting to know me better and how I am progressing in that program, so I just felt embarrassed... didn't want friends to know about me doing poorly... I just felt like everything was falling apart... I was isolating myself from others... I would barely talk to my friends... if I had a question I was hesitant in asking for help... I just felt like I wanted to be alone... I just had this feeling inside me... I'm not a good student... I'm not smart enough.

Aya became hesitant asking for help from her professors and peers and felt hopeless since she had already failed several courses in her first semester: “It doesn't matter what I do... I'm getting poor grades, so why even try.” She did not feel connected with her dental hygiene professors throughout her educational journey and withdrew from socializing with her classmates. As noted earlier in Section 4.4.4, even with her prior post-secondary educational experience, Aya was also unaware of student services and the associated resources available at the university to support her academically and personally.

5.2.4 Social activities.

The former students were asked to what extent they were involved with on-campus and off-campus social activities. They were also asked to identify what influenced this involvement and if this involvement changed over time. Eight students

articulated that the demands of their academic schedules either fully precluded their involvement in social activities or limited the extent of their involvement throughout both semesters, as summarized by Natasha: “I wasn’t involved in activities that were outside of the dental hygiene program... too busy.”

Participants also commented that the extensive commute time to and from campus contributed to their inability to participate in extra-curricular opportunities. The physical time spent commuting left participants exhausted. Natasha expressed: “Being that I had to wake up so early to commute, it made me tired in the afternoon. I didn’t really feel like I wanted to do anything else after a long school day.” Similarly, Aya said: “I was living at home. It was very hard for me to stay that long on campus... it took me two hours to get home, so that’s why I wasn’t able to take part.” Lindsay shared: “I didn’t feel like I had the time to join social clubs with our schedules... plus my commute home was long so I was usually tired.”

Five former students did join an on-campus social club although they commented that their participation was limited to one meeting or activity each week due to the time constraints previously identified. When asked why she wanted to join a club, Kristine stated that she felt doing so would build a sense of belonging to the university and provide networking opportunities with students from other disciplines of study:

It does make you feel like you belong to the university a bit more just because you get to know other people from other faculties... they might have information that you don’t know about the campus and it just helps you network. I think that just helps your overall university experience.

Interestingly, the social clubs to which these five students belonged had a cultural or religious theme. These UBC social clubs included: the Chinese Varsity Club, the Ismaili Students’ Association, the Pakistan Students’ Association (PSA), and the University Christian Ministry (UCM). This theme of finding safety and familiarity in one’s culture also surfaced earlier when participants discussed the process of forming friendships in Section 4.4.5. Relying on one’s spirituality or religion for social support, as previously described with James who was close with his church community for example,

also highlights the importance of connecting to one's faith for many of the former students. Despite their busy academic schedules and commute times, these five students prioritized time to join a club in which they would find fellow students of similar cultures and religions. When asked why this genre of club was important, Soraya, who described herself as South Asian, responded that she felt closer to home when spending time with people from the same culture:

... because you're with people like are part of your culture so it's nice to be around those people that are similar to you... part of your background, it's just what you've grown up with... feels more closer to home... there's a closeness and togetherness feeling.

Similarly, Aya, also South Asian, shared that she joined the PSA to socialize with people who had similar interests as she recalled that many of her dental hygiene classmates enjoyed consuming alcohol and dancing but she desired to participate in different activities when not studying: "I joined the PSA... I would attend their regular meetings... and help out... organizing events.... I wanted to meet more people from my culture and my background... with similar interests." When explaining the motivation to join the UCM, James stated that socializing with people of the same religious background helps build identity and community:

In first year, everything is new, you want to build your identity... and also do things you enjoy doing with other people... you want to meet people who have the same interests... it's all about community and about building relationships... I found that with UCM.

Jessica did not participate in social activities during her first year at UBC. When reflecting back on her experience being away from her family for the first time in a different province, she shared: "I think I realize now that had I participated in more activities, I would have felt that sense of belonging and purpose."

Those who joined clubs noted that their participation decreased as the academic year unfolded, particularly as they entered the examination period to conclude the first

semester and even more so as participants commenced their second semester. The five participants who belonged to social clubs in the first semester all recalled that their participation in these clubs significantly decreased or stopped in the second semester due to their poor first semester academic performance, most having failed at least one course. Soraya shared: “I was less involved cause we did get more busy in the second term... I needed more time for my academics... I was very mentally distressed and overwhelmed with my term one performance.” Likewise, Kristine commented: “...participation decreased in term 2... lack of time... I didn’t do well academically in term 1, so I was prioritizing studying more over other activities to improve grades.” Many students were concerned about their likelihood of succeeding in the program upon entering the second semester; therefore, their prioritization of time shifted away from their social commitments and towards their academic responsibilities and their expressed need to devote more time to studying. By the midpoint of the second semester, only two participants continued their involvement in social activities.

5.2.5 Institutional commitment to student welfare.

Participants were asked to reflect over their entire first year experience in the BDS program and were presented with the following question: did you feel that the institution and faculty were committed to your well-being and success, why or why not? There were mixed responses across participants. Only one person responded affirmatively. The remaining nine former students felt mixed indicating varying levels of support within the Faculty of Dentistry but did not feel supported by the university as an institution.

Within the Faculty of Dentistry, two students positively recalled efforts from the Faculty to engage with students through the student services’ Advisor program which assigns students to a specific faculty member in the BDS program. The appointed advisor is typically not a faculty member who teaches in first year in order to foster feelings of safety for students in sharing challenges with a faculty member who is not responsible for their academic outcome.

I didn't find that the Faculty was there to support me other than my faculty advisor who did have those meetings every couple of months where she checked in with us... we would meet as a group so we would bring up points that were general with all the students. (Natasha)

The advisors are requested to meet with their assigned students in a group at least once a semester. As previously noted, Kristine suggested that organizing individual meetings rather than group meetings would allow students to more comfortably share their personal challenges. Reflecting back on her own challenges that she was experiencing with her boyfriend, Kristine commented:

Having our faculty advisor come talk to us... that was a way for the faculty to say we care about how you're doing and that was the faculty's way of reaching out to us... but I think if you were able to talk to us individually as well, I think that would be an extra step to see how we are doing... in groups, a lot of people were probably shy to tell them [faculty advisor] that they were actually going through in front of other people... meeting individually would strengthen the relationship that the student has with the faculty member.

Outside of the Advisor program, most former students did not feel supported by the Faculty of Dentistry's student services department. As outlined earlier in the chapter, these students either were not aware of student services or did not understand what resources and support this department offered. Within this department, a manager and assistant manager of student services are available to help students navigate through personal challenges that may be affecting their academic performance. These two staff members are also responsible for referring students to other student support resources on campus – UBC Counselling Services, Access and Diversity office, Equity and Inclusion office, and the Wellness Centre to name a few. Participants shared their perceptions of the absence of support resources available and their subsequent feelings of abandonment or that staff members within student services were preoccupied. In general, there appeared to be a lack of communication, visibility, and promotion from student services resulting in a lack of student knowledge about such resources. Natasha, Yoon, and

Kristine, who all arrived at UBC directly from small high schools in which student support services were visible and accessible, commented:

For student services, I didn't find them as engaged with the students... I didn't see them around... even sending out an email saying 'hi everybody, I just want to check in and make sure that everything is okay with you guys' would have been really nice. (Natasha)

I felt like I was the one in charge of my own success... I felt like the program, the faculty didn't really go out of their way to prevent or help.... to present information... or services that could help you out... That was one aspect I think the institution or faculty could work on. (Yoon)

Because I wasn't aware of the counselling that was available and it wasn't visible... I just felt I didn't have any services available to me for my personal struggles... if that was made more visible, I would have been inclined to seek them out. (Kristine)

While Shora was aware of the student services department, she shared the following unfortunate experience while attempting to reach out to a staff manager in this department: "She was really hard to contact... busy woman... I remember even going to her office... she was just busy and running around... I couldn't really catch her" (Shora).

A significant dichotomy also emerged regarding feeling supported by the Faculty of Dentistry but not by the university at large. The dominant contributing factor to this dichotomous feeling was the connection that participants did or did not feel with their professors. Connection to faculty members played a significant role in students' feelings and perceptions about the extent to which the institution cared about their well-being and success. Most students felt quite supported by their dental hygiene professors but many adamantly expressed a lack of support from their professors in the general studies courses outside of the Faculty of Dentistry. Smaller class sizes positively influenced this connection. Students were enrolled in large classes in their non-dental courses in both semesters that resulted in ongoing feelings of disconnection. However, the smaller class

sizes found within the second semester dental hygiene courses greatly enhanced feelings of connection with the professor which resulted in stronger perceptions that the institution was committed to student welfare (see Figure 7).

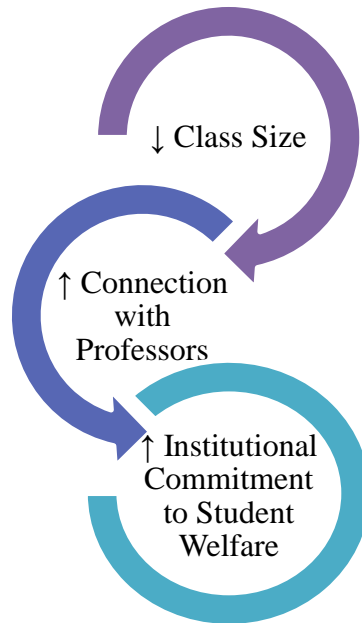


Figure 7. The relationship between class size, connection with professors, and perceived institutional commitment to student welfare.

Seven former students expressed that they felt their dental hygiene professors were committed to their well-being and success. The smaller class sizes in the dental hygiene courses and receiving consistent supportive messages in class facilitated feelings of support and approachability. For example, Soraya shared:

For the dental hygiene specific courses, I felt that the profs were there for not just mine but the entire class' well-being and success because they would always ask us if they need to say anything again or if we understood anything... so it felt like they were there for us.

With this new found experience of support from faculty in the dental hygiene courses, participants reflected back to their first semester experiences with their general studies professors in sharp contrast:

I think the Faculty of Dentistry and the dental hygiene program in particular were committed to helping me succeed... but having the other professors in the other large courses... I felt more like a number... even when I would email back and forth, they didn't respond... it didn't really matter to them... There were some professors that you can feel teaching is a chore for them. (James)

I felt dental hygiene professors cared, but not the others. Our [dental hygiene] profs frequently asked us questions and repeatedly said in class that it's okay to ask questions and to approach them after class... other profs didn't do that. (Lindsay)

Contrasting their experiences with Dentistry, participants overwhelmingly perceived that the university and their professors in the larger general studies courses did not care about students' well-being and success. These former students perceived that their general studies' professors mostly seemed disinterested in teaching and in their students' learning and did not exert much effort to ensure their students' understanding of the material. This sentiment spanned both semesters. The larger class size in the non-dental courses in both semesters was a contributing factor to this perception. Several participants commented about feeling like just a number within the large classes.

... in my other courses outside of the Faculty of Dentistry, a lot of the classes were large classes. So for me the perception was that they [professors] weren't really committed because I didn't really see them much and they don't really know the students one-on-one. (Soraya)

I had gone to my teacher... I would bring an example problem and they would answer it and would just move on to the next student. They never ensured we truly understand it... it was just tell me your question and I'll answer it and they move on to the next person in line, so that wasn't very helpful. (Ashley)

Aya, who entered the BSc program with prior post-secondary education, felt similarly:

I felt like they [professors] didn't care about my well-being, like if I was doing well or not. They were just more concentrated on their job... and just teaching... I know it's not the professor's job to always go after students, but at least try and start a conversation knowing that they are first years and might be shy to ask questions... or letting them know that they are there for you... some profs were just there to teach and leave.

Feeling strongly disconnected with their general studies professors translated to the perception that the institution at large, UBC, was disinterested and disengaged with its own students.

When I see UBC as a whole... I didn't really feel like the entire university really committed to my well-being and success... but the reason I felt that the Faculty of Dentistry was more committed was because that's the Faculty that I was a part of and I saw and connected with people there more... (Soraya)

Lindsay commented on the perceived absence of support systems administered by the university after the *Imagine UBC* orientation day experience and shared her perception and interpretation of UBC's motto, Tuum Est, to be unsupportive:

I did not feel like there were any support programs in place for students after the first orientation day... UBC's motto, Tuum Est, – it's up to you – doesn't really make you feel that the university is here to support you.

Although most participants were unaware of the support systems offered to students at UBC and within the Faculty of Dentistry, most felt supported by their dental hygiene professors. The positive relationships that developed with the dental hygiene faculty contributed to the perception that the Faculty of Dentistry cared about their students' well-being. Conversely, feelings of disconnection with faculty members outside of the Faculty of Dentistry and a perceived absence of student support systems contributed to feelings of disconnection with the university and the perception that UBC as an institution was disinterested in its students' success.

5.2.6 Comparing second and first semesters.

The second semester, in comparison to first semester, appeared easier for the former students as the initial apprehension and fear associated with arriving on campus, feeling lost and uncertain, and meeting new people had subsided. Participants felt more settled and grew accustomed to their new learning environment and associated academic expectations placed upon university students. Their studying habits changed after learning from errors made and poor resulting grades in the first semester. The challenge with large classes sizes in the general studies courses persisted in the second semester; however, participants enrolled in dental hygiene courses in the second semester. These smaller dental hygiene classes covered academic material which all students felt was extremely relevant to their developing role as a health care professional; consequently, students felt more motivated and engaged in their learning. They also reported feeling more connected to faculty members within the Faculty of Dentistry due to the smaller class sizes, caring attitudes, and approachability of their dental hygiene professors. This close connection as well as spending more time within the dental building facilitated stronger feelings of academic integration to the Faculty in the second semester compared to the first.

Socially, most participants felt that the demands of their academic schedules combined with commuting times to and from campus limited or fully precluded their involvement in social activities throughout both semesters. Those who participated in social clubs felt a strengthened sense of belonging to the university. With regard to perceived institutional commitment to student welfare, connection to faculty members played the most significant role in students' perceptions about the degree to which the institution cared about their well-being and success. Smaller class sizes positively influenced this student-faculty connection. Participants felt their dental hygiene professors were committed to their success but most received messages of disinterest from their general studies professors. Therefore, participants felt the Faculty of Dentistry was more committed to student welfare compared to the university as an institution.

5.3 Factors that Hindered Progression

After storying their journeys throughout the first and second semesters at UBC, participants were asked to share what factors or experiences in their first year they believed ultimately hindered or prevented their progression to the second year of study in the BSc program. Such experiences included large class sizes and the associated lack of connection felt with faculty, academic under-preparedness, lengthy commuting times, and personal challenges. However, most participants acknowledged the role and responsibility that students have in their own academic success; consequently, they also blamed themselves for the poor outcome and highlighted some lessons learned.

5.3.1 Large class sizes.

The theme that spanned all participants regarding barriers to their success was adapting to the learning environment within the large class sizes that were common to the first-year general studies courses in Biology, Chemistry, English, and Psychology. As previously discussed, these former students shared their overwhelming displeasure for large classes, and they described how such a classroom environment impeded a close connection with faculty members and inhibited student engagement. In addition to the large lecture theatre classes, tutorials were also often comprised of many students who required the assistance of an individual TA. When asked what experiences hindered their progression, Natasha and Ashley's first responses spoke directly to class size:

What hindered my progression was chemistry and psychology... and the way the teacher taught... he assumed that we knew everything... whoever was answering his questions, they may have got the material but that doesn't really count for the whole class of 200 students... In chemistry, we had tutorials but there were so many students with one TA and we all had so many different questions... she'd go over maybe one of our questions but we would want her to go over more but then other students would want her... that didn't work well for me. (Natasha)

In a class of 300 people... for office hours... we waited for 3 hours, so that hindered progression... the class sizes were definitely an issue... we couldn't get help from our prof... With such a big class, it was hard for us to participate, hard for us to be open with asking questions. (Ashley)

As discussed in an earlier section, the former students expressed great anxiety associated with asking questions in the large classes due to the fear of being judged or perceived as unintelligent by the professor or other classmates. As a result, participants would refrain from asking questions and engaging their professor during class time. For example, Aya recalled:

People are going to judge me for not doing well... just the embarrassment I wouldn't ask... the whole idea of going to such a big university is that everyone thinks that in order to get admission you have to be super smart... if I ask for help they're going to think that I'm not smart enough.

Associated with these challenging experiences in these large classes, participants felt poorly prepared to manage their own learning in the new academic environment.

5.3.2 Academic under-preparedness.

The former students storied the challenges they experienced with their transition from secondary school to the university culture of learning. They expressed they felt academically under-prepared to meet the demands of their new learning environment at UBC. The expectations to learn independently with less instructor guidance, to manage a heavier academic workload outside of class time, and to employ new learning strategies that facilitate the understanding and application of material rather than its rote memorization were a culture shock for most. They recalled being babied or coddled by their high school teachers. Many asserted that their high school experiences did not prepare them sufficiently to survive and thrive in higher education. James captured this sentiment by sharing:

The high school education system did not prepare me for the way that university ran... I was used to cramming and would still get straight A's... I think instead of

memorizing and regurgitating information, spending more time understanding the concepts [in university] was a transition for me... towards application, so you understand the concept and now you have to apply it to this problem.

Feeling academically under-prepared was compounded by commuting experiences that interfered with participants' precious studying time.

5.3.3 Length of commute.

When asked what hindered their progression, four former students also discussed their commute to and from campus. The length of the commute, often comprising up to two hours, interfered with valuable studying, socializing, and rest time. They detailed their level of exhaustion when arriving home after a long commute and discussed their sleep deprivation as a result of awakening extremely early in the morning in preparation for their eight o'clock classes. For example, Aya shared:

It [commuting] definitely played a part because two hours just taking the Skytrain and the bus, you get really tired when you come home and... I don't want to do any of my work or open my books... In the morning my English class used to be at 8am so I had to be up by 5am... I would leave around 6am and I would get home, if I didn't have a [social club] meeting, around 7 or 8pm, otherwise 9 or 10pm.

In addition to the large classes, feeling academically under-prepared, and lengthy commutes, participants also shared some personal challenges which distracted them from their academic responsibilities.

5.3.4 Personal challenges.

Several participants also outlined some personal challenges that were distractors to their academic success which they attributed to being contributing factors to their progression in the BSc program. Shora and Kristine had grandmothers who passed away while in their first year of the program. Shora recalled: "I remember she [grandmother] passed away... when term two started... so I went really downhill and got

really negative and just came to thinking that I really don't care about this school stuff..." In addition to having a grandmother pass away, Kristine also storied her struggle ending her long-term relationship with her boyfriend while concurrently attempting to manage the pressure she placed on herself to succeed because of her family history and the sacrifices her parents had made immigrating to Canada from Vietnam for a better future for their children. Kristine's boyfriend's possessiveness was interfering with her ability to study with her classmates:

... he [boyfriend] did not allow me to go places without him and... I wasn't allowed to hang out with my friends... or talk to certain people... I did want to let someone know what I was going through... I think if I just had someone to talk to and I guess release all the stress I was going through... I think that would have helped a lot. (Kristine)

As discussed previously, Kristine's account also demonstrates that she was not aware of the student support resources available within the Faculty of Dentistry and the university. Kristine described how she did not feel supported emotionally by her parents and felt pressure to succeed as a result of the sacrifices they made – she attributes this pressure as a contributing factor that hindered her academic success:

Back in Vietnam, my parents' families were pretty affluent but after the war broke out they came here and lost a lot. So they tried to make a really good life for myself and my brother and I guess from that perspective they just felt like we shouldn't have any issues just studying and focusing on our academics because they already made the pathway for us to do well... so when it came to my emotional and mental struggles, they really didn't understand it... and I didn't want to disappoint them... I developed anxiety... I would get really stressed... and nauseous... and really withdrawn from everything... this played a part in hindering my success for sure. (Kristine)

The former students highlighted above what influencing factors they felt hindered their academic progression in the BSc program. Stemming from these experiences, these former students shared what lessons they learned from these challenges.

5.3.5 Lessons Learned

Despite storying their journeys and challenges with the previously identified barriers that these former students felt hindered their progression, they also blamed themselves for their unsuccessful outcome in the BSc program and shared some valuable lessons learned. Seven former students placed the responsibility of student success on themselves rather than the institution. Many felt that they were to blame for an insufficient investment of time dedicated to studying even after previously discussing their demanding academic schedules and lengthy commutes, as Natasha explained: “The major fault was against me because I didn’t put as much time into studying for the courses... I felt that sometimes I spent more time with friends to relax.” Similarly, Jessica stated: “It was my fault that I did not study enough.” Shora blamed herself for not dedicating more time to reading her textbooks:

I think it’s a fault on my side because since the beginning I never like reading books... so coming here [UBC] and then having to read huge books... it was a big difficulty for me... I do blame myself... I slacked on my end.

Despite the large class sizes and the reported inadequate number of teaching assistants available to support the hundreds of students in the general studies courses, several participants blamed themselves for not being sufficiently resourceful to find additional academic support. Rather than placing the responsibility on the university to ensure adequate instructor-student ratios or for ensuring students are aware of the extracurricular academic support resources available, these former students resorted to self-blaming. As an example, Soraya stated that she could have exerted more effort finding a private chemistry tutor:

It was my fault because... with chemistry for example, I did go for help but then there were other things that I could have done to maybe try and progress myself...

I did go look for advertisements that have chemistry tutors but I could have looked to other places or maybe even on the internet.

Despite the large classes and difficulties previously expressed attempting to ask the professor for assistance, Lindsay shared: “Looking back, I should have tried harder to find the professor after class... I should have asked for help more.” Making better use of class time and asking questions when the professor is with them is a strategy several participants expressed they need to adopt going forward. When participants discussed students’ general lack of awareness about the student support services available within and outside of the Faculty of Dentistry, a propensity to self-blame also emerged. These former students referred to their responsibilities as adult learners and taking ownership of seeking additional support: Ashley asserted: “Since it is university and we are older, we should be able to look for these support services on our own” Likewise, Kristine expressed:

I think just being an adult in general, you have to seek out the resources you need for yourself because if you don’t ask and if you don’t do your research or look then you’re not going to get answers.

After being dismissed from UBC, 80% of participants continued their education in other institutions. Four former students were so passionate about dental hygiene that they enrolled in a dental hygiene diploma program elsewhere in British Columbia. Other former UBC students successfully completed programs in information technology, business management, massage therapy, and nursing. Learning how to take more responsibility for engaging in their learning and how to navigate the institution were important lessons learned from the student perspective. For example, after experiencing difficulty forming friendships at UBC, Jessica entered a nursing program at a different institution and joined study clubs with her nursing classmates early in the first semester. She shared that her intentions to find an academic learning community early and to develop a sense of belonging with her classmates helped facilitate her academic success. All eight former students who pursued education elsewhere were successful in meeting

their respective graduation requirements in each of their respective subsequent educational programs.

Large class sizes and feelings of disassociation from faculty members, feeling unprepared for learning in a university environment, lengthy commutes, and personal challenges were identified as contributing factors that hindered these former students' progression to their second year of study in the BSc program. They not only retrospectively recognized the resources that would have been helpful while in first year but they also acknowledged their own role and shortcomings in seeking assistance as adult learners in higher education. This recognition and their lessons learned helped facilitate their academic success in their subsequent educational experiences.

5.4 Student Suggestions to Help Facilitate Success

After detailing their journeys through the first year and outlining the contributing factors that they felt hindered their successful progression, participants were asked to identify what would have helped facilitate their academic success in the BSc program. Three primary suggestions surfaced: smaller classes, more outreach efforts from faculty and student services, and an increased awareness of support resources available through workshops and pamphlets specifically designed for students in the Faculty of Dentistry.

5.4.1 Smaller classes.

Throughout the interviews, participants passionately communicated their levels of dissatisfaction towards the large class sizes in the first-year general studies courses. After experiencing the small class cohorts within the dental hygiene courses in the second semester, they further comprehended how the large classes impeded a conducive learning environment. As described earlier, students' ability to connect with their professors, propensity to ask questions, and ability to access their professors and teaching assistants were hindered in the larger classes.

As a result, when asked for suggestions to help facilitate student success, all 10 former students recommended that the university work towards implementing smaller class sizes for the general studies courses. For example, Soraya stated:

If the class sizes were smaller, it would have been easier for me to ask more questions, especially in chemistry and psychology... Instead of having one tutor maybe have two... one tutor made it really hard to get all the questions answered.

Aya felt similarly and shared: “The small classes helped. You get to know your peers more and the instructors get to know you better. I just felt like that connection makes it easier for students to approach your professor.”

To experience a small classroom environment earlier in the program, to facilitate the process of familiarizing students more intimately with their dental hygiene professors, to enable the development of one’s identity as a developing health care professional earlier in the program, and to raise the level of relevancy and excitement for learning, several students also suggested that the *Dental Hygiene Theory and Practice I* course be offered in the first semester rather than waiting until the second semester to learn about the profession of dental hygiene. As a student living away from her family who was yearning for a sense of belonging, Jessica expressed:

Implementing a dental hygiene specific course in first term... would have made me feel that sense of belonging earlier and develop even more passion for dental hygiene... that I may have been able to overcome... the frustrations better.

These students also stated that positioning a dental hygiene course in the first semester would also allow for first-year students to spend more time within the dental building thus strengthening a sense of belonging to the Faculty of Dentistry earlier in the year. A second suggestion included strengthening outreach efforts from faculty and student services.

5.4.2 Outreach from faculty and student services.

Five former students asserted that faculty members and staff within the student services department need to exert greater effort reaching out to students more frequently and earlier in the first semester. Students stated that receiving more frequent messages of support from faculty and student services would create an environment in which students would feel more comfortable asking for assistance. Jessica, James, and others noted that they often felt left alone when struggling academically.

If the faculty notices some difficulties in marks... get in and see how that student is doing early on... having somebody there to contact you to talk and see how they're doing earlier on before things progress ... would be quite beneficial.

(James)

Having experience previously as a first-year student at Kwantlen University, Aya strongly recognized the hesitation behind junior students' willingness to seek assistance:

Frequently reminding us that you are here for us and we care about your well-being or even having sessions where it's one-on-one with the professors would help... I believe first year students are very hesitant in asking for help. I just feel like those messages would make it easier for them to reach out if they needed to.

(Aya)

Natasha, Ashley, and James also expressed that additional outreach on an individual level would be more helpful compared with receiving group messages or arranging group meetings. Individual meetings with faculty and student services would facilitate a process of individualizing or tailoring recommended resources and strategies for success for first-year students. Receiving more personal support would also convey a stronger message that faculty and staff care about students' well-being.

I wanted the dental hygiene professors to check in with students individually.... if I didn't do well on a mid-term, I would have liked if the professor would have sent me an email and said 'you know... is there any way that I can help you or maybe we can meet and look over your mid-term'... I would have loved that... it

would have encouraged me to do better if the professor would have reached out to me personally. (Natasha)

Having the teachers reach out would have been nice... if they notice a student is not doing well in a class give them a personal email but it seems like it would be very hard for them if every class is 300 students....but it would make us more relatable to the teacher and show that the teacher really cares about how we're doing. (Ashley)

I think it would be helpful to have somebody sit down with me individually and say hey we're noticing this happened in first term. These are things that you are able to do and these are resources that we have. (James)

It was also suggested that the Faculty of Dentistry develop opportunities to increase the contact time with faculty and staff outside of the classroom setting to strengthen connections. Kristine and others believed that becoming more acquainted with faculty and staff outside of formal curriculum time may create a safer learning environment as students may find their professors to be more personable, relatable, and approachable. Kristine shared:

I don't remember doing anything with faculty outside of lectures. I think it could be a good thing because I think if the professors got to know the students better and vice versa... on a more informal personal level... students may opening up about their struggles or be more comfortable to make some kind of initiative to say that they need help... you then might not see them as just your professor, you can see them as someone you can open up to and tell them about what you are actually going through other than just your academic struggles to see what else could be hindering your success.

In addition to smaller classes and more robust outreach efforts from faculty and student services, these former students suggested developing mechanisms aimed at enhancing first-year awareness of the support resources available on campus.

5.4.3 Enhancing student awareness.

As detailed in Section 4.4.4 pertaining to contact with staff and support services, when participants were asked about the extent to which they communicated with staff members and utilized the student support services available within and outside of the Faculty of Dentistry, most participants expressed they had minimal or no contact with staff and student services. The predominant reason for this minimal contact for many appeared to be a lack of awareness of the support services available and its purpose.

As a result, nine of the former students strongly recommended that faculty and staff at the university implement effective mechanisms to ensure that students are made aware of the various support resources available. More transparent, personal, and consistent communications regarding resources available from the student services departments within and outside of the faculty throughout in the first year may raise student awareness. Kristine, who had lost a grandmother and was experiencing personal challenges with her boyfriend while in first year, suggested:

The institution can advertise that they have counselling a lot more for their students cause I'm pretty sure that there are other students than just myself who go through a lot of personal struggles, and I think if we just know that these [resources] are available... it would really help.

To help raise awareness about the support services available to help students manage stress, participants suggested that the Faculty of Dentistry offer workshops and presentations about the resource centres and key staff members available on campus to assist with emotional, academic, and financial challenges. Such workshops would not only inform students more personally about what services are available and for what purpose but students would also have the opportunity to meet the various key stakeholders involved. Participants indicated they would have also appreciated workshops designed to strengthen students' studying habits and to discuss strategies for success in the program including information related to the expectations of a university student. For example, Yoon suggested:

Being open and intentionally presenting options... reiterating different supportive networks available... presenting different financial options that can help you... and also counselling services... sessions like this would help.

Aya and others suggested that these workshops be offered in the Faculty of Dentistry regularly commencing on orientation day and continuing throughout the first semester on a weekly or bi-monthly basis.

Because it is a program that we enter right after high school, maybe throughout the first two weeks, have workshops where you can give us tips on how to study in university because it is very different from what we were doing in high school.
(Aya)

As a recent high school graduate like most other participants, James expressed:

Telling us different way to be successful... forming study groups... giving us assurance of knowing it's safe to ask questions and... to approach the different professors... advising us that these are things to do to be successful in the program... would be very helpful.

In addition to suggesting a series of workshops, Kristine and Aya also recommended that the faculty develop and distribute pamphlets that outlined the support resources available within the faculty and across the university. Kristine suggested: "At an orientation, have pamphlets to make resources more visible... because I just remember that I didn't hear about it [resources] at all." Likewise, Aya recommended: "Maybe having brochures or having them [student services] come in on the orientation and discuss all the services that are offered... would help."

After identifying factors that participants felt hindered their academic success in the BDS program, these former students articulated several recommendations they would like for the university to employ to better support student success. Participants suggested that the university conduct learning in smaller classes in the first-year general studies courses in which students can develop stronger relationships with their professors and in which students need not be fearful of classroom engagement. Additional efforts

from faculty and staff to reach out to students more individually and outside of classroom time would also help facilitate a safer learning environment. Finally, participants recommended that the Faculty of Dentistry develop non-curricular workshops for entering students aimed at increasing students' awareness of the student support resources available on campus and reviewing strategies for success as a university student. Through these recommendations, these former students have taught me that the institution can greatly strengthen its role in supporting student success.

Figure 8 summarizes the themes storied from these 10 former students in their first year of study, outlines the contributing factors that participants felt hindered their progression, and highlights their recommendations to improve student success. This chapter has chronologically detailed the stories that emerged from the participants' interviews as they detailed their lived experiences as first year students in UBC's BDSc program. The next chapter will relate these findings to the literature on student retention in higher education and integrate the theoretical framework used in this study.

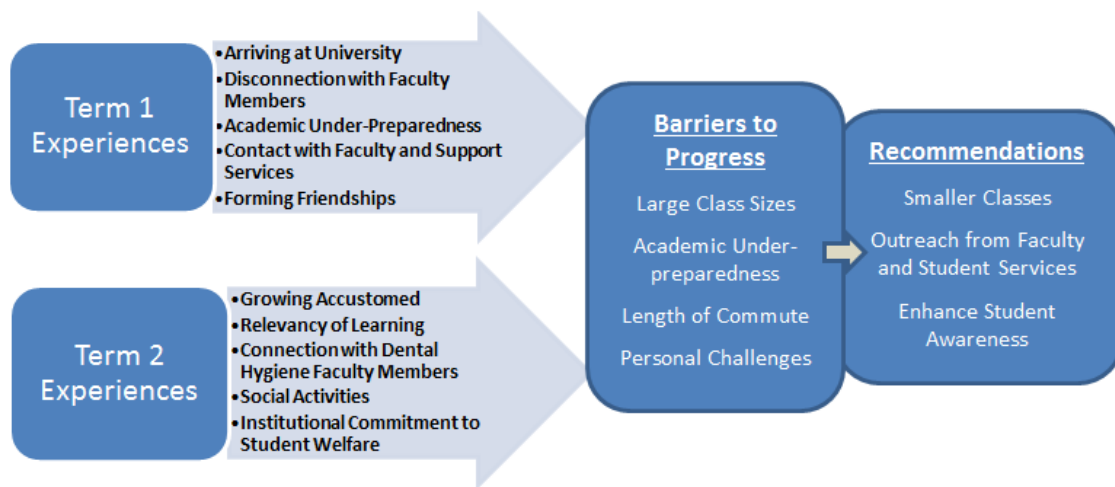


Figure 8. Emerging themes regarding participants' experiences including barriers and student recommendations.

Chapter 6. Discussion

6.1 Introduction

This inquiry began with the following question: what were the lived experiences of first year students who did not progress to their second year of study in the BDSc program at UBC?

The stories shared provided insight to the research sub-questions regarding participants' experiences as they transitioned into their first year in the BDSc program, influencing factors that contributed to their academic performance and subsequent dismissal from the university, and the support mechanisms and resources needed for entering students. This chapter discusses how the participants' stories in response to these questions relate to the existing literature and contribute in novel ways.

To begin, participants' reasons for choosing the BDSc program are positioned within the limited body of literature that has examined motivating influences for pursuing baccalaureate education in dental hygiene. To manage the extensive amount of information on student retention presented in the literature review and within the findings, the discussion frames the former students' experiences within the themes of social integration, academic integration, and institutional commitment to student welfare. Results are also contextualized within Braxton and Hirschy's (2005) theoretical framework that informed this inquiry throughout this discussion. This chapter aims to elucidate what has been learned about student retention from the participants' narratives that can help inform policy and practice within the Faculty of Dentistry, the university, and beyond.

6.2 Motivating Influences

This study makes a novel contribution to the literature around motivating influences as it explores motivators for pursuing a four-year entry-to-practice dental hygiene degree program intended for applicants with no prior dental hygiene education. The resonant narrative threads identified in chapter four reinforce and strengthen several

of the themes known to be motivators for pursuing dental hygiene degree-completion education in the literature.

All 10 former students in this study expressed that they desired to earn a dental hygiene degree to broaden their prospective career opportunities. Many longed for positions outside of the clinical private practice setting such as in education, research, public health, and independent practice. Aspiring for a career in education garnered the most interest. This interest in career advancement was found in the research conducted by Waring (1991), Imai and Craig (2005), and most recently by Kanji et al. (2010) where participants undertaking dental hygiene degree-completion education were interested in pursuing careers in the areas of education, community health, residential care, and research. Similarly, the strongest area of career interest in these three studies pertained to teaching. An older study conducted by Cameron and Fales (1988) also supported this finding, reporting that 70% of dental hygienists who had completed a dental hygiene degree were interested in preparing for teaching as a career option.

Participants in this study tended to regard clinical practice as a reasonable starting point in their career with the intent of eventually moving *higher* with their degree. This sentiment that clinical practice was a starting point to a career was captured in some of the language used when participants described themselves wanting to work beyond *only* or *just* in a clinical setting. Acknowledging the sacrifices that her parents had made emigrating from Vietnam for a better life in Canada, Kristine had high career aspirations: "...I want to work in other areas other than *just* [emphasis added] practising at a private practice..." This sentiment was shared in Kanji et al.'s (2010) study where participants desired to move beyond the perceived introductory career stage and redundancy of clinical private practice: "I was getting sort of stagnant. I wanted more out of my professional experience than solely clinical dental hygiene" (Kanji et al., 2010, p. 152).

Shora, Ashley, Jessica, and Lindsay shared their belief that finding employment in any practice setting would be easier for a graduate from a well-known university commenting that earning a degree from UBC would be viewed favourably on their resumes. A similar sentiment was observed in Kanji et al.'s (2010) study on dental

hygienists in Canada practicing with a diploma who returned to university to complete their dental hygiene degree. Participants in his study believed that earning a degree would ensure that they remain competitive in the employment market. Many participants in his study expressed their concern over the growing competitiveness in the employment market while also sharing their belief that dental hygiene would inevitably evolve into a degree for entry-into-practice profession in Canada, and they "...didn't want to be left behind" (p. 150).

The several studies that have investigated career outcomes of earning a dental hygiene degree clearly demonstrate that baccalaureate dental hygienists are more likely to practice outside of the clinical setting. The University of Toronto's Bachelor of Science in Dentistry (BScD) dental hygiene graduates have assumed roles as teachers, administrators, researchers, or students in graduate programs (Pohlak, 1996). Similarly, the University of British Columbia's Bachelor of Dental Science in Dental Hygiene graduates have been successful in securing employment within educational institutions, regulatory authorities, and public health agencies (Craig et al., 1999). In Brand and Finocchi's (1985) study, the majority (63.6%) of the baccalaureate dental hygiene survey respondents stated that their employment opportunities had increased as a result of the dental hygiene degree. Similarly and more recently, Rowe et al. (2008) found that more baccalaureate degree dental hygienists (30.3%) held dental hygiene faculty positions than associate degree dental hygienists (4.3%) in the USA.

Most former students also expressed an interest in pursuing graduate studies and desired to earn a baccalaureate degree to then have the option of applying for graduate education in the more distant future. For example, Jessica shared: "I knew that getting a degree was a prerequisite for getting your masters and PhD later on." Pursuing graduate education was documented as a motivating influence by several participants in Imai and Craig's (2005) survey as well as Kanji et al.'s (2010) qualitative study in which few participants had an immediate interest in pursuing a graduate degree but wanted that option to be available to them in the future.

The prestige of attending UBC and the perceived social status and credibility awarded to earning a degree, particularly when participants compared this credential to a dental hygiene diploma, emerged as a motivating influence for pursuing a dental hygiene degree. Again, this finding has also been documented in Imai and Craig's (2005) study in which 37% of survey respondents cited the status of the degree as a *very important* motivator. In Kanji et al.'s (2010) study, participants had expressed frustration at the lack of recognition that other allied health professionals and society bestow towards a dental hygiene diploma.

Mirowsky and Ross (2003), in their book *Education, Social Status, and Health*, state that education forms a unique and powerful dimension of social status. They assert that educational attainment marks social status at the beginning of adulthood, preceding and therefore influencing other acquired social statuses such as occupational status, personal and household income, and freedom from economic hardship. Education helps develop *human capital* which Mirowsky and Ross (2003) define as the productive capacity developed and embodied within human beings. Similarly, Bourdieu's theory of social reproduction posits that societal structure determines an individual's place in society, asserting that education can be a successful mechanism to reproduce social inequalities (Bourdieu & Passeron, 2011). The structure and distribution of the different forms of capital can represent the structures of the social world and may manifest as educational achievements which can influence social status (Bourdieu, 1986; Bourdieu & Passeron, 2011). The importance of *human capital* and social status reverberated across participants. Natasha, Shora, Kristine, and others explicitly discussed how they were influenced by the additional merit that they believed society bestows on those who have earned a degree.

Approaching status from a profession's lens, Clovis' (1999) foundational article discussing attribute theories and the professionalization of dental hygiene declares that the amount of education required and the extent of specialization are central to achieving professional status. Establishing baccalaureate dental hygiene programs in universities will further contribute to society's understanding that the degree of specialization in dental hygiene is high and will garner further recognition that dental hygiene remains the

only health profession dedicated to the prevention of oral disease (CDHA, 2009; Clovis, 1999). Whether considering an individual's perceived credibility in society, the impact of education on human capital, or the professional status of an occupation, the level of educational attainment and its impact on status appears to be a powerful motivator for pursuing advanced education.

Family and peer influences emerged as significant motivators for pursuing a dental hygiene degree at UBC. Messages stemming from participants' parents since childhood about the importance of education and the opportunities that advanced education would enable reverberated throughout participants' narrative accounts. Within the context of dental hygiene, the only other study found that documented family and peer influence as a motivator for pursuing post-diploma degree-completion education was Kanji et al. (2010). His study noted that encouragement from instructors from dental hygiene diploma programs, parents, and close friends profoundly influenced decisions to apply for degree-completion education. Whereas in some cases, participants were motivated to earn a degree because everyone else in their family had earned degrees, other participants desired to be the first in their family to achieve this educational milestone (Kanji et al., 2010).

Buddel's (2014) narrative inquiry on first-generation university student persistence also discussed how parents and grandparents storied the value of higher education and future roles as university students in the lives of their children, integrating a family narrative and habitus towards pursuing a university degree. Participants were deeply affected by their families' financial struggle to survive which served as a powerful impetus to break free, be different, and want more through pursuing higher education (Buddel, 2014).

Pressure from parents to attend and excel in university felt particularly strong for three participants in this study who identified as Chinese or Vietnamese. Kristine expressed that being raised in an Asian household, attending university was extremely important since her parents sacrificed so much in their emigration from Vietnam. This

message of sacrifice and the value of education permeated their household habitus and cultural capital. Similarly, Yoon, a Chinese-born Canadian stated:

My parents considered UBC to be the Harvard of British Columbia... nor did I have much of a choice... there was always this huge pressure on me to do well [from parents]... and it produced a lot of life controlling issues that were starting to show through such as anxiety.

These experiences closely correlate with other studies exploring Asian students' experiences in higher education which demonstrate that Asian students are feeling excessive pressure from parents and peers to excel academically (Lagdameo et al., 2002; Suzuki, 2002; Wexler & Pyle, 2012; Yoo et al., 2015). Research that has explored the Model Minority Stereotype (MMS) speaks to the extent to which Asian Americans themselves may have internalized the MMS and its potential harm to their mental health demonstrating that the MMS and associated pressures to excel academically have been significant sources of chronic stress (Wong & Halgin, 2006; Yoo, et al., 2010; Yoo et al., 2015).

Lastly, participants in this study reported that the campus environment was a motivating influence for applying to UBC, citing the campus as large, beautiful, and filled with opportunities to meet people of diverse backgrounds and participate in sporting and club activities. This emerging theme had not previously been documented in research exploring motivating influences for pursuing dental hygiene degree education. Other less prevalent reasons for applying to the BDSc program included a desire for more knowledge and income potential. The desire for more knowledge acquired in a degree program of longer duration compared to a dental hygiene diploma is consistent with the findings in Imai and Craig's (2005) survey in which 85% of survey respondents noted *to increase knowledge* as a *very important* reason for pursuing dental hygiene degree education. Kanji et al. (2010) also reported that dental hygienists practising with a diploma returned to university to complete their degree to deepen and broaden their knowledge within and outside of dental hygiene theory.

The CDHA recently published the *Canadian Competencies for Baccalaureate Dental Hygiene Programs* (2015) which outlines the additional educational competencies that dental hygiene students are expected to demonstrate in a baccalaureate dental hygiene program compared to a diploma program. These additional competencies include: research use, policy use, disease prevention (at the population level), and leadership (CDHA, 2015a). Only a few studies have explored practice outcomes of earning a dental hygiene baccalaureate degree, including another article by Kanji et al. in 2011 stemming from their qualitative study on a national sample of dental hygienists (Kanji et al., 2010). These studies reported that dental hygienists feel they have acquired additional knowledge and feel more competent in reading and appraising research, using research to inform practice decisions, academic writing and communication skills, and interprofessional collaboration as a result of their degree-completion education (Kanji, Sunell, Boschma, Imai, & Craig, 2011; Sunell, McFarlane, & Biggar, 2013; Sunell, McFarlane, & Biggar, 2016).

The belief that baccalaureate dental hygienists earn a higher income than dental hygienists with a diploma also surfaced as a less prevalent motivator. Similarly, only 4% of the survey respondents in Imai and Craig's (2005) study thought that the dental hygiene degree would result in a higher employment income. No participants in Kanji et al.'s (2010) study indicated that an increase in salary was a motivating influence for pursuing degree education. Whether additional education in dental hygiene results in higher employment income is relatively unknown. The first tool to explore a possible difference in employment income based on educational level was the CDHA 2015 *Job Market and Employment Survey* administered to the 17,000 CDHA members. When comparing education level to median income level, the survey found the annual median full-time salary for diploma-educated dental hygienists across Canada to be \$65,000, compared with \$69,000 for baccalaureate dental hygienists and \$70,000 for dental hygienists with a graduate degree; these results were deemed not to be statistically different. This survey also found that the highest full-time median salary based on practice setting was found to be in educational institutions (\$80,000) in which the minimum educational requirement is a baccalaureate degree (CDHA, 2015b). Further research in this area is warranted.

6.3 Relating Participants' Entry Characteristics to the Literature

As outlined in the review of the literature in Chapter 2, several theoretical models of student retention and student dropout have identified specific student entry characteristics to be closely associated with student persistence in higher education. For example, students stemming from families with higher socioeconomic status, from parents with post-secondary education, and from family members who express an interest in their children's education and encourage intellectual curiosity maintain higher levels of persistence (Bean & Metzner, 1985; Buddel, 2014; Hossler et al., 2008; Norvilitis & Reid, 2012; Statistics Canada, 2008, 2011; Tinto, 1975; Wexler & Pyle, 2012; Wintre et al., 2011). Likewise, *Canada's Youth in Transition Survey* found that students who had dropped out of from higher education more likely belonged to families with lower levels of educational attainment (Lambert et al., 2004).

Bourdieu also proclaims that students are more likely to be successful in higher education if their parents belong to a higher socioeconomic status and have university education as these students can build upon their family habitus, socioeconomic, and cultural capital (Bourdieu & Passeron, 2011). Familial knowledge of the higher education system can be considered a cultural award that may assist students' navigation through the educational system (Andres, 1994).

Braxton and Hirschy's (2005) student departure theory that informed this doctoral research study also emphasizes the influences of student entry characteristics such as family background, parental education level, and academic and career aspirations on student persistence. Dating back to Tinto's (1975) student integration theory, these student entry characteristics have been found to help shape students' commitment to a particular program or institution and can ultimately influence their withdrawal decisions.

Some of the findings from my research study speak contrary to the student retention and dropout theories that have been discussed, including Braxton and Hirschy's (2005) model, pertaining to the relationship between these aforementioned student entry characteristics and persistence. Nine of ten participants in this study were commuter students; thus, findings are positioned within Braxton and Hirschy's (2005) model of

student departure for commuter students due to its relevancy. Their model associates students' academic and career aspirations with higher levels of institutional commitment and ultimately higher rates of persistence (see Figure 3). All former students expressed great passion for joining the dental hygiene profession and aspired to pursue baccalaureate education in dental hygiene rather than a dental hygiene diploma in order to expand their career opportunities, access graduate education, and acquire more knowledge in addition to other motivating influences previously discussed. Despite seemingly high levels of personal and career aspirations, participants did not progress beyond their first year of study at UBC. When explored through the lens of the higher education system rather than a single educational institution, then some of the findings from this research are better supported by Braxton and Hirschy's (2005) model. For example, these former students did have academic and career aspirations; consequently, most re-enrolled in another institution after UBC and successfully completed their education.

Analogous to other identified student retention theories and related empirical works identified within the literature review, Braxton and Hirschy (2005) also associate higher socioeconomic status and higher parental education levels with student persistence. With regard to family socioeconomic status, all participants described their status to be middle-class whose parents had varying levels of financial savings for their university education. No former students identified as low socioeconomic status. Participants' parents were either fully or mostly funding the cost of their child's education. Those participants who required other means of financial support successfully received assistance from the university or a financial institution.

Student fees for the BSc program are extremely high (about \$19,000 per year; approximately \$80,000 over four years). Statistics Canada (2016) indicates that Canadian full-time students in undergraduate degree programs paid on average \$6,373 in tuition during the 2016-2017 academic year. Canadian undergraduate students in Faculties of Dentistry continued to pay the highest average tuition fees (\$21,012) in 2016-2017 (Statistics Canada, 2016). Therefore, most students in UBC's Faculty of Dentistry are encouraged to participate in BNS's student loan program intended specifically for UBC

students in medical and dental undergraduate programs. Due to the bank's low interest rates (approximately 3%) and conditions in which students are not required to commence repayment until after graduation, many students in the Faculty of Dentistry receive financial assistance from BNS, even those from affluent families.

Therefore, even though six former students required partial financial assistance, they were not categorized nor did they identify as stemming from a low socioeconomic status. As a result, findings from this study about students requiring financial aid have not been discussed within the literature pertaining to non-traditional or minority student populations from low socioeconomic status backgrounds. Natasha, Ashley, and Lindsay secured part-time employment to contribute financially, and James and Jessica paid for their own tuition in full from their savings. In fact, James described himself to be financially sound. Braxton and Hirschy's (2005) commuter student model speaks to such external influences as financial stress, employment commitments, and limited time spent at home on student persistence. Even though finances were not identified by any participant to be a barrier or stressor to their education at UBC, some participants did seek employment to subsidize their tuition that contributed to academic time lost by having to work while studying. While the former students did not identify as low income, needing additional capital through employment for some did influence their journey.

In addition, seven participants' parents had earned a college diploma or university degree. The value and cultural capital placed on university education from these parents influenced many participants to pursue higher education. Yoon, James, and Lindsay, whose parents did not have post-secondary education, were motivated to be first-generation university students. They recognized the sacrifices that their parents made immigrating to Canada for a better future for their children; these sacrifices served as impetus to pursue and succeed in university. Eight of ten former students felt their parents expressed interest and were actively involved in their first year studies. Their parents were supportive of their career path as dental hygiene was perceived to be a respected area of health care that would result in a comfortable quality of life. The high levels of parental education and interest in participants' studies did not result in the persistence that research predicts. As noted earlier, Yoon and Kristine, whose families emigrated from

Asia recalled the high standards expected from children in their culture. The resulting pressure felt from these parents to excel academically may have served as a source of stress and may have internally reinforced the MMS, although this sentiment was not explicitly expressed.

This incongruence that has surfaced between this study and the literature on student dropout regarding students' entry characteristics and persistence in higher education may be attributed to several factors. Firstly, most former students in this study were transfer-outs. That is, after they were academically dismissed from UBC, 80% of participants enrolled in another post-secondary institution; only Yoon and Lindsay dropped out of the higher education system. This outcome is consistent with the YITS that demonstrated a significant number of Canadian students leave their first programs but remain in higher education by switching or transferring to another program or educational institution (Finnie et al., 2014). Measured within five years after commencing their first program, approximately 23% of university students transfer to another educational institution (Childs et al., 2016).

Much of the literature that has correlated students' entry characteristics with persistence has examined persistence in or dropout from the higher education system rather than through the lens of program or institutional transfer. Studies have associated higher family socioeconomic status, higher parental levels of education, and greater parental interest in their child's education with persistence in the higher education system (Hossler et al, 2008; Norvilitis & Reid, 2012; Statistics Canada, 2008, 2011; Tinto, 1975; Wexler & Pyle, 2012; Wintre et al, 2011). However, most participants in this study did ultimately persist in the higher education system after enrolling in another institution; they did not drop out of higher education.

Literature that correlates students' entry characteristics with persistence in higher education may be examining an incomplete picture of students' actual experiences and outcomes by not considering those students who transfer out (Childs et al, 2016). For example, the scarcity of research that has examined student dropout from the perspective of former students who voluntarily withdrew from an educational institution did not

follow their former students and inquire about additional education that may have been pursued after their withdrawal (Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; Wilcox et al., 2005). As previously discussed in the literature review, the traditional uni-institutional post-secondary path from high school to completing one's education at one post-secondary institution represents a decreasing proportion of the pathways taken by students in the higher education system. Multi-institutional enrollments and student practices of *swirling* are becoming more recognized by educational researchers but remain poorly understood (Bahr, 2012; Taylor & Jain, 2017).

Secondly, earlier student dropout theorists, whose theories were outlined in this dissertation, associated students' entry characteristics with persistence on predominantly White, residential students. Their models did not account for students who were commuters nor did their models recognize that minority student populations may not have the predisposition to successfully navigate the higher education system (Bean & Metzner, 1985; Deil-Amen, 2011a; Pidgeon, 2008). Most former students (70%) in this study identified as visible minorities. Nine of ten participants were former commuting students; only Jessica lived on campus when enrolled at UBC in first year. Thus, these participants did not fit the model of the traditional student as defined in earlier theoretical works.

Finally, as noted in Section 2.4 *Challenging Traditional Theories*, the relevance of these predictive models that examine students' entry characteristics to a population of former students who were institutionally dismissed is questionable. Tinto (1975) explicitly states that distinguishing between students who dropout due to institutional dismissals from those who voluntarily withdraw is important. However, student dropout theories and related studies (Bean and Eaton, 2000; Bean and Metzner, 1985; Bourdieu, 1977; Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; Pascarella et al., 1983; Tinto, 1975; Wilcox et al., 2005) disputably focus on those students who *choose* to persist from those who do not. In addition, as discussed, the conception that students have a choice in their own enrollment and persistence in higher education can often be problematic (Cox, 2016). Language used throughout this literature relates to students' *decisions* to withdraw from higher education. Therefore, the applicability of this literature

to understand predictive factors associated with this study's population of participants who were institutionally dismissed from UBC rather than withdrawing voluntarily remains debatable.

6.4 Transitioning to University

Exploring students' experiences as they transitioned into their first year in the BSc program was central to one of the research sub-questions. Arriving on campus and for the first few weeks that followed, participants in this study expressed a surfeit of emotions involved in transitioning to university. They recalled feelings ranging from excitement to apprehension and fear to uncertainty. This experience stemmed from a heightened level of intimidation and unease regarding the sheer size of the university campus and number of students present during the first few days. The anxiety around meeting new people was intensified by feelings of loss and disorientation with their new physical learning environment.

Research has noted that students' engagement with a new learning environment encompasses a plethora of emotions. Entering a new university not only involves feelings of excitement and exhilaration but also feelings of dislocation and loss (Buddel, 2014; Christie, et al., 2008; McMillan, 2013). Findings from this study resonated closely with findings from Christie et al.'s (2008) research in which their findings speak to a loss of a secure learning identity acquired from students' previous educational experiences. From interviews with first-year students at a large university, participants conveyed a strong sense of excitement and exhilaration during their first few weeks simply about going to university to study (Christie, et al., 2008). Over time, many first-year students in their study experienced great challenges in their transition to a new teaching and learning environment accompanied with greatly different expectations of learners. All of their first-year student participants expected the learning to be different; however, over the course of the first year of study, students no longer felt competent to be students. Christie et al. (2008) explain that this loss resulted from several factors including the sheer size and scale of the university. New students struggled to physically navigate their way

around campus and experienced an overwhelming loss of identity within the large classes in contrast to their prior educational experiences in small groups.

McMillan (2013) also reports that the transition to a new learning environment such as a university is challenging and often entails feelings of loss and loneliness which can lead to academic under-performance and withdrawal from the institution. Her study on first-year dentistry and oral hygiene students explored the extent to which their transition into a new program was experienced as emotional. Feelings of excitement and exhilaration were also accompanied with feelings of vulnerability and loss (McMillan, 2013). Morosanu et al. (2010) found that these feelings of loss and disorientation involved with the transition to a new learning environment are compounded by students who are living on campus. First-year residential students often arrive at university after leaving their home for the first time to come to an unfamiliar environment and lifestyle to which they must adapt quickly while attempting to manage the new academic demands (Morosanu et al., 2010). Students' transition involves a number of challenges not only academically but also socially and culturally, serving as significant sources of stress (Morosanu et al., 2010; Wilcox et al., 2005).

This sentiment was clearly captured in Jessica's account of her struggles transitioning to university life; she was the only participant who lived as a residential student when enrolled in first year. In addition to her mixed feelings of excitement and apprehension involved with arriving on campus, she also shared her feelings of loss and anxiety associated with moving away from her family for the first time. Jessica articulated that the most challenging experience in her transition to UBC was being away from home and expressed that she felt completely lost without her family. Her feelings of being home sick impacted her ability to remain motivated and focused on her school work and served as a contributing factor to her unsuccessful outcome at UBC. After leaving UBC, Jessica enrolled in a nursing program in Alberta where she lived at home with her family and is currently in her graduating year.

Feelings of disorientation or loss not only pertained to participants' physical surroundings in a large university campus (and being away from family in the case of

Jessica) but also related to their struggle adjusting to the new academic expectations placed upon them as adult learners in a university setting. The theme of feeling academically underprepared resonated across all 10 former students in this study. Participants detailed the challenges they confronted with their experiences transitioning from their previous educational experiences in secondary school to the university culture of learning.

Experiencing a more independent learning environment, a heavier academic workload, and a method of learning which required students to understand and apply material rather than to merely memorize came as a culture shock. Participants felt they were being held more accountable and responsible for their own learning, an expectation not previously experienced in high school. Participants used words such as *babied* and *spoon feeding* when reflecting back to their high school learning environment and interactions with their previous teachers. Their accounts indicated that their secondary school teachers would be immediately available, assist with assignments, provide weekly positive feedback and validation, follow up with students to ensure their work was completed, and even contact parents if students did not attend class. Yoon, for example, explained how the coddling experienced in high school resulted in her dependency on her teachers' praise that did not facilitate the process of developing into an independent adult learner. Based on these experiences, the sentiment expressed from the former students was one of feeling ill prepared to self-learn. They were unfamiliar with how to manage their newly found freedom experienced at UBC. They generally did not understand what taking responsibility for their own education entailed. Learning on their own, being accountable for attending classes without attendance being closely monitored, taking responsibility for remaining current with material, ensuring the appropriate learning resources such as textbooks were obtained, and asking for assistance when in need did not appear to be responsibilities that participants' had previously experienced in secondary school.

Participants expressed that the workload was significantly higher than what was experienced in high school and the outcomes of learning were substantively different. The sheer amount of reading required for each class and the faster pace of the lectures

were new, challenging, and threatening experiences. Participants recalled that comprehending what their professors were trying to articulate was often a challenge and catching up with missed material was difficult given the quantity of academic material delivered during each class. Soraya felt unprepared for the work involved at university as she remembered no need to review material daily in high school. Her notes in high school were given to her, the material to be assessed on an examination was articulated clearly by her high school teachers, and consequently, she was able to review the notes merely a few days before a test. As a result, at UBC, Soraya felt overwhelmed trying to remain current with reviewing her readings and notes from each class, and the experience of doing so without the aid of her teacher was foreign.

Shora recalled a similar experience with successful outcomes in high school and indicated her most significant challenge in transitioning to university was "... learning how to self-learn..." and keeping pace with all of the material. Based on similar experiences, Lindsay also stated that she felt "... unprepared for the work load involved at university." In addition to feeling there was significantly more material to review in university, participants also expressed that the depth of understanding required was greater. Examination questions often required participants to apply their learned material rather than to simply memorize and recall the information. As an example, Kristine shared her surprise writing her exams at UBC to find that the questions did not come straight from the course textbook as she previously experienced in high school. These stories illustrate that the process and outcomes of learning experienced in high school left participants ill-equipped to enter and thrive in university. Students unanimously felt academically underprepared for the expectations placed upon them at UBC.

The concept of academic under-preparedness has been well noted across the literature that has investigated reasons for student attrition in higher education (Leppel, 2005; Meyer & Marx, 2014; Noel et al., 1985; Scott et al., 2008; Wilcox et al., 2005). Students' decisions to withdraw from higher education are multifactorial and include incompatibility with the institution or program of study, challenges with social integration, and a lack of academic preparedness (Leppel, 2005; Mestan, 2016; Meyer & Marx, 2014; Scott, et al., 2008; Wilcox et al., 2005). Wilcox et al. (2005) state that

preparedness for university involves first-year students feeling compatible with their institutions. Compatibility involves a range of influencing factors including congruency between previous and current educational experiences as well as feeling familiar with associated academic expectations (Meyer & Marx, 2014; Wilcox et al., 2005). Meyer and Marx (2014) and Wilcox et al. (2005) maintain that the predominant reasons for student non-completion are academic under-preparedness and incompatibility between students and their learning and social environments.

Research has demonstrated that entering university students typically experience challenges in taking more responsibility for their own learning while managing a larger amount of academic work (Christie et al., 2008; McMillan, 2013; Pidgeon & Andres, 2005). Domestic and international first-year students across four Canadian universities expressed challenges in their transition from high school to university, noting the heavier work load, more difficult examinations, and shorter learning periods experienced in university (Pidgeon & Andres, 2005). These students articulated that the second semester in first year was easier than the first because they felt more familiar with the academic expectations placed upon university students.

Both McMillan (2013) and Holt (2005), who investigated students' transitional experiences into post-secondary oral hygiene programs, found that first-year students expressed fear and uncertainty with regard to unknown academic expectations. The sense of newness and lack of clarity regarding what to expect was experienced as threatening and confusing (McMillan, 2013). Holt's (2005) investigation reported that academic under-preparedness, and the subsequent struggle to meet the programs' academic and clinical demands, was a significant contributing factor that impeded students' academic progression.

Theoretically, Braxton and Hirschy's (2005) model identifies pre-entry academic ability (contextualized by the former students as academic preparedness or under-preparedness) as an external influence for commuter students in their persistence patterns. Since their model for commuter students emphasizes academic integration over social integration, Braxton and Hirschy (2005) strongly suggest that students' sense of self-

efficacy and ability to engage in classroom life have an important role in students' decisions to persist. Astin's (1984) theory of student involvement, relating to the extent of psychological and physical energy that students exert, identified a number of different types or categories of involvement. One such category was *academic involvement* which Astin (1984) defined as the extent to which students work hard at their studies, the number of hours they spend studying, the degree of interest in their course, and employing assiduous study habits. However, several questions to ponder remain: are Astin's (1984) indicators appropriate measures if entering university students are academically underprepared? How are students new to university able to adopt effective study habits, comprehend the number of hours they need to dedicate to their studies, or learn independently if they have not previously been exposed to similar learning environments with similar expectations placed upon them within the secondary school system?

Boylan (2009) used non-cognitive affective factors to conclude that underprepared students were challenged to find the determination to study, autonomy in studying, and willingness to ask for assistance. Similar to Astin (1984)'s theory, these suppositions and findings tend to problematize academic under-preparedness and non-completion on the entering students themselves. Astin (1984) explicitly stated "... the theory of student involvement encourages educators to focus less on what they do and more on what the *student* [emphasis added] does" (p. 522) thereby contributing to the climate of blaming students for their lack of preparedness and struggling with the transition to university.

Finkelstein and Thom's (2014) phenomenological study explored the influence of non-cognitive factors on college academic preparedness and found that a lack of parental involvement and excessive high school teacher involvement are contributors to under-preparing students for success in higher education. As attested by Yoon and other former UBC students, the degree to which their high school teachers supported them may have delayed the development of abilities to learn independently and succeed in university. Finkelstein and Thom (2014) suggest that underprepared students need an encouraging academic environment in college to facilitate the academic transition and to promote their

self-worth. Barefoot (2004) and Barnett (2011) argue that since retention research to date has focused primarily on students' entry characteristics, little scrutiny has been given to the way the university experience is structured and delivered to support students.

Participants identified that being academically underprepared was a contributing factor that hindered their progression into their second year of study at UBC. Many of these former students strongly believed that their secondary school experiences did not prepare them adequately for the responsibilities that would be placed upon them as adult learners in university. Thus, attention may need to shift to the role that the faculty and institution can play in facilitating entering students' successful transition through better meeting the needs of those students who feel underprepared. Even though the Faculty of Dentistry and UBC at large offer services to support students' academic success and overall well-being, participants in this study articulated that they were not aware of the various resources available or its purposes. Most participants had minimal or no contact with staff and student services at UBC due to this lack of awareness. Even Aya, who was the one former student who experienced post-secondary education before arriving at UBC, did not know what student support resources were available at the university.

Since I was also an undergraduate student in the large Faculty of Science at UBC, I resonate with these experiences. During my first semester at UBC at the age of 18 entering directly from high school, I experienced the university as large and intimidating. As I had previously articulated in the Methods chapter, I was accustomed to being an academically strong student in secondary school. Feeling unprepared for the new learning demands being placed on me, I recall failing my first mid-term examination in Physics. I was emotionally devastated and remember feeling like an imposter at UBC who was not sufficiently intelligent to succeed at such a prestigious university. Like these former students in my study, I did not know where to go on campus to seek support as I was unaware of the resources available to support me through these challenges.

What lessons can be learned from these stories? Here lies an opportunity to ensure that the institutional or organizational structures in place are more visible to entering

students and new mechanisms are developed to further facilitate students' transition, integration, and learning.

Hossler et al.'s (2008) suggestion for institutions to conduct family orientation programs for interested family members and entering post-secondary students may provide an opportunity for students and their families to better understand expectations placed upon adult learners, institutional policies, and support services available to aid in the transition to higher education.

Involving secondary school educators in this discussion and providing platforms and symposiums to increase their awareness of such transitional challenges into higher education is likely another important consideration. Stemming from these former students' voices, recommendations will be made in the Conclusion chapter that speak to possible changes to policy and practice at UBC and beyond that aim to better support student success.

6.5 Social Integration

Since the Faculty of Dentistry and the university were generally not able to offer student support services that participants used, these former students found their primary source of support through one another. Forming friendships within their dental hygiene cohort was central to their support system and deemed critical in the fostering of feeling a sense of belonging and integration to the institution in their first year. When new students enter university, feeling lonely is a common experience (Morosanu et al., 2010; Wilcox et al., 2005). In this transitional phase, entering students have a desire to belong, to connect and identify with others, and to feel positioned within a safe environment as they begin to negotiate their new identities (Morosanu et al., 2010). Forming and maintaining friendships with university peers is central to this transitional process and to feeling emotionally supported (McMillan, 2013; Wilcox et al., 2005). The possibility of a sense of alienation or isolation can negatively impact learning (McMillan, 2013).

The former students' stories reveal the importance of social and academic integration to the university, and making compatible friends surfaced as the first process

through which this integration is achieved. The process of making friends for Natasha and Kristine started by connecting through social media before classes commenced on a student-created Facebook page. Everyone found the *Imagine UBC* orientation day experience to be a valuable mechanism which facilitated the meeting of new people; however, this experience was limited to a one-day event. At first, most sought support from their previous high school friends but as the first few weeks of term unfolded participants developed stronger friendships within their dental hygiene cohort. Their primary source of social support that persisted throughout the academic year stemmed from their new circle of friends established within the BDS_c program. Wilcox et al. (2005) also found that in the first few days of university, emotional support from existing prior friendships from home provided a buffer against the stress of feeling alone in a new institution but as students developed social networks at university, these new friendships became their main source of social support.

Pidgeon and Andres (2005) found that first-year commuter students across Canadian universities experienced difficulties with forming friendships. Students from UBC in their study expressed feeling “out-of-the-loop” (p.67) with on-campus social activities yet they noted those first-year students who resided on campus found it easier to maintain friendships. As articulated by one of their participants, connecting with commuter students was more difficult as the length of time required to travel and associated transportation needs reduced available time to socialize (Pidgeon & Andres, 2005). My own experiences of living on campus as a first-year UBC student would support their findings. Forming friendships with those living in the same residence complex around me came easily as there were numerous on campus social activities in which to participate. Surprisingly, in this research study, Jessica was the sole participant who resided on campus and expressed the greatest difficulty with forming friendships. Jessica shared that the academic demands of the BDS_c program inhibited her ability to devote the time required to sustain friendships with others living in her on-campus residence. Another unique experience was the benefit of the excessive time spent commuting on public transportation that served as a facilitator of friendship formation for Natasha and Ashley. The lengthy travel times spent on the bus and skytrain allowed for uninterrupted protected time for participants to converse and connect with other

commuting dental hygiene classmates. Lengthy commutes, however, were noted by Aya and three others to be a factor that impeded their academic success as a result of exhaustion and sleep deprivation from the elongated days.

To facilitate the process of making new friendships, after having met other first-year dental hygiene students during the *Imagine UBC* orientation day event, participants strategically chose to remain physically together in the large general studies first-semester courses. Within their Biology, Chemistry, English, and Psychology courses, Natasha, Yoon, Ashley and many others storied how they would save seats for one another, would take breaks and eat together on campus, and would share notes and study together after classes. The formation of these academic learning communities consisting of first-year dental hygiene students surfaced as the most significant means by which close friendships formed and strengthened. Participants found themselves challenged to feel as though they belonged to the UBC community due to the sheer number of students in their classes and the size of the campus. The impact of class size will be discussed in the section on academic integration below. These self-created student-driven academic learning communities helped foster a sense of social belonging to the university community and enhanced feelings of social integration. Kristine shared how these learning communities facilitated her sense of belonging to the program and to the university:

I did feel a sense of belonging in dental hygiene... our study groups created a sense of community that I liked and as long as I had a community that I belonged to on campus, this made me feel like I belonged to UBC.

The significance of academic learning communities has been noted in the literature. Barefoot (2004) asserted that establishing learning communities in which the same small group of students attends the same classes at large commuter institutions can facilitate a sense of belonging and engagement and can help address feelings of isolation. Barefoot (2004) further argues that the institution can and should play a leadership role in the development of these academic learning communities. An organizational innovation that was found across some American universities involved a structure designed to develop student learning communities through the linking of courses and co-enrolling a

small cohort of first-year students (less than 25) together across four or five courses (Barefoot, 2004). Barefoot (2004) proclaims that simply attending several classes with the same other first-year students almost inevitably results in the development of friendships and a stronger sense of belonging to the institution.

In addition, participants' emphasis on the importance of academic learning communities closely correlates with Braxton and Hirschy's (2005) theory of commuter student departure that informed this research study. Their theory posits that since commuter students may not solely be focused on engaging in a university's social activities, their main interactions occur in the classroom environment. Therefore, classroom engagement and feeling a sense of belonging in the classroom can have a significant role in student persistence. Lewis and Miller (2013) also found that the social environment for first-year commuter students in their study was most strongly tied to the classroom. Braxton and Hirschy (2005) assert that commuter students who are involved in academic learning communities benefit the most from the academic dimension of commuter campuses.

Similar to Barefoot's (2004) realization regarding co-enrolling first-year students in the same courses, Braxton and Hirschy (2005) also pronounce that students who share a set of themed courses with a small cohort of peers, termed *block scheduling*, experience a powerful synergy of social and academic integration with peers and faculty. Participation in academic learning communities can strengthen commuter students' sense of belonging to the university and positively influence their willingness to persist (Braxton & Hirschy, 2005). Findings from this study are congruent with Braxton and Hirschy's (2005) theory regarding the impact of these learning communities. Although participants did not progress to their second year of the BDS_c program, they strongly voiced the degree to which they relied on these academic learning communities to form friendships and subsequently foster a sense of social integration.

These experiences and lessons learned helped facilitate many of these former students' journeys in their subsequent education after leaving UBC. For example, Jessica subsequently enrolled in a nursing program at a large university in Alberta. Unlike her

experience at UBC, she was able to live at home with her family while attending school. As a result, feelings of loneliness and home sickness were no longer challenges. Similar to her experiences in dental hygiene at UBC, many of her first-year nursing courses comprised large classes. Having experienced difficulty forming friendships at UBC, Jessica was quick to join study clubs consisting of her nursing classmates and found that her academic learning community helped solidify meaningful friendships and facilitated her academic success.

Literature has demonstrated that reasons for students withdrawing from higher education often centre around challenges with establishing and maintaining a close network of friends (Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; O’Keeffe, 2013; Wilcox et al., 2005). As previously discussed, Wilcox et al. (2005) found that *difficulty in establishing friendships* was the primary reason why students voluntarily withdrew from first-year university. Even though participants in my research expressed apprehension around forming friendships upon entering UBC, most generally did not experience great challenges forming a strong social network of friends due to becoming acquainted on social media before arriving, the *Imagine UBC* orientation day, and through the self-establishment of their academic learning communities.

Participation in on-campus social activities was limited to only five participants. The primary reason for joining a UBC social club stemmed from a desire to strengthen a sense of belonging to the university. The clubs to which these five former students sought membership embodied a cultural or religious genre which spoke to participants’ desire to connect with other students with similar values, beliefs, and interests. Finding familiarity with others of the same culture or religion was deemed important to feel close to home and socially safe.

An abundance of literature has found that academic performance and retention in higher education are positively correlated with increased engagement including involvement with peer groups through extra-curricular social activities (Astin, 1984, 1993; Braxton & Hirschy, 2005; Clark et al., 2012; Gorman, 2012; Holt, 2005; Scott et al., 2008; Tinto, 1975; Wilcox, et al., 2005). Such involvement has been shown to

strengthen students' sense of belonging within the institution which can serve as a key determinant of student success (Clark et al., 2012). Keeping students engaged in their institutions through academic and social activities increases student integration and institutional commitment that has shown to increase persistence to graduation (Kuh, 2009; McCormick et al., 2013; Tinto, 1975). Those participants who joined clubs at UBC ultimately expressed that their participation did increase their feelings of integration with the university.

The extent of participants' involvement, however, was severely limited due to their academic schedules. The five former students who joined a social club were able to commit to only one meeting or activity each week. Others expressed having no spare time while on campus to partake in social clubs at all. Those who were involved in social clubs found that their level of involvement decreased or ceased as the academic year unfolded. Due to their poor academic performance in the first semester, Kristine, Soraya and others felt no choice but to shift their prioritization of time away from social commitments and towards their academic responsibilities in the second semester as they still yearned for a successful outcome. This decision was particularly difficult as Soraya and Aya had joined a club to connect with other students of similar cultures and religious backgrounds to feel a sense of belonging. Likewise, James' reasons for joining the UCM involved community building and developing relationships with others of similar interests but he also recalled needing to shift the time that he was spending at church towards his studying.

Commuting time also served as a significant barrier to participation in on-campus social activities. Natasha, Aya, and Lindsay expressed that their excessive time spent commuting contributed to their unsuccessful outcome in first year since the lengthy commutes often left them feeling exhausted at the conclusion of each school day and sleep deprived each morning. However, as discussed, Natasha also felt that her long commutes facilitated the process of forming friendships with other classmates as a result of having protected time on the bus to become better acquainted with other classmates who had similar routes home.

These findings also correspond to commuter student dropout theories (Bean & Metzner, 1985; Braxton & Hirschy, 2005; Pascarella et al., 1983) that postulated that commuter students are significantly less likely than residential students to be involved in the sociocultural life of the institution. Commuter students' competing time demands limit their degree of social involvement on campus. Commuter students tend to devote their campus time to their academic pursuits of attending class and meeting with faculty or TAs, spending their time efficiently on campus often hurrying to class or transiting home (Braxton & Hirschy, 2005). In their investigation of first-year student experiences at UBC, Andres et al. (2005) similarly found that commuting students' transition into university life and ability to partake in on-campus social activities were hampered by time spent commuting. Despite the noted time constraints and subsequent limited involvement in on-campus social activities, the former students expressed satisfaction with friendships formed within their dental hygiene cohort. As also noted in the literature reviewed, the development of friendships, the quality of these peer group interactions and support experienced within academic learning communities, and participation for some in on-campus social activities illustrated mechanisms through which feelings of social integration were achieved.

6.6 Academic Integration

While participants articulated ways through which they felt socially integrated through the formation of friendships in their dental hygiene cohort that stemmed from the creation of learning communities and participation for some in social activities on campus, many former students significantly struggled in their efforts to feel academically integrated with the institution. Relating back to the theory that informed this research, Braxton and Hirschy's (2005) theory of commuter student departure emphasizes the importance of the academic, rather than social, integration for commuter students as their primary interactions occur in the classroom. Therefore, classroom life plays a significant role in commuter student persistence. For commuter students, Braxton and Hirschy (2005) theorized that the greater the degree of students' academic integration, the greater their subsequent commitment to the institution which leads to a higher probability that they will persist.

One of the strongest themes that spanned across all 10 former students in this study was the difficulty connecting with faculty members in the large class sizes that was common to the first-year general studies courses in Biology, Chemistry, English, and Psychology. Participants strongly expressed their feelings of discomfort in these large classes which often encompassed hundreds of students. Many shared their challenges interacting with their professors due to feelings of intimidation involved with asking questions and perceptions of disinterest from faculty members. Underlying participants' hesitation with asking questions was the general sentiment of fear of being judged as unintelligent in a public setting. Further contributing to participants' feelings of disconnection with their general studies professors were their perceived unavailability and frequent deferments to their TAs for assistance. Natasha and Soraya, who entered UBC directly from small high schools, expressed that they felt like just a number since their professors did not know them by name. Difficulties in forming relationships with faculty members in these general studies courses, particularly in the first semester, severely impeded the development of feeling academically integrated to the institution. I resonate with these feelings as my experiences as a first year student at UBC also involved courses in Biology, Chemistry, Physics, and Psychology in which there were hundreds of other students. I did not feel connected to my professors – they certainly did not know my name and, to this day, I do not know theirs. When asked what factors hindered their progression, all 10 former students highlighted the challenges involved in the large classes which included connecting with their professors, remaining engaged with their learning, and feeling anonymous.

Student discomfort in large university classes has been documented by Pidgeon and Andres (2005) who reported that students across four large Canadian universities found class sizes to be too large. Their participants similarly expressed that such large classroom environments created challenges with their learning as there were limited opportunities to engage in class discussions and connect with professors. McMillan (2013) also found that students felt anonymous in large university classes, as they felt alone and disconnected with the institution since the professor did not know them by their name. Christie et al. (2008) noted that first-year students struggle to physically navigate their way around campus and experience a loss of a secure identity within large classes in

contrast to their prior educational experiences in secondary school learning in small cohorts. In their investigation of first-year students' intentions to re-enroll at the University of Memphis, Lewis and Miller (2013) concluded that close relationships with faculty had a significant impact on students' levels of motivation and their intent to persist.

Research has demonstrated that meaningful interactions with faculty positively influence students' experiences in higher education (Kim & Sax, 2007; Kuh & Hu, 2001; NSSE, 2013; O'Keeffe, 2013; Pascarella & Terenzini, 2005). When students feel connected and develop sustainable relationships with faculty and staff, they are more likely to feel engaged in school and motivated to succeed (Kuh & Hu, 2001; Komarraju et al., 2010; O'Keeffe, 2013; Wexler & Pyle, 2012). The significance of making connections with faculty members that many participants voiced in this study strongly aligns with the aforementioned literature. As an educator and administrator, I have learned that first-year students place great value in feeling connected with their professors. The disconnection that these former students experienced with their professors was the critical factor that inhibited the development of feeling academically integrated with the university in their first semester. These challenges associated with connecting with faculty members and engaging in their learning within the large classes were deemed to be significant contributing factors in participants' poor academic performance in their first year.

In the second semester, participants enrolled in two dental hygiene courses in addition to their general foundational courses. Nine former students described their learning experiences to be more positive, engaging, and comfortable in the second semester and attributed these more positive experiences to the smaller class sizes within their dental hygiene courses. The small classes created a safer learning environment in which the former students participated in class discussions with other peers more freely. Aya, Ashley, and Yoon shared their elation that their dental hygiene professors knew them by their first name which they deemed as an extremely important part of establishing a relationship and feeling connected, valued, and safe. Feeling connected and safe in the presence of their professors resulted in students' increased propensity to ask

questions in class without the fear of being judged by other students and faculty members who they did not know. As a result of feeling closer to their dental hygiene professors and more engaged with their classroom experiences, many expressed that they consequently felt more academically integrated to the Faculty of Dentistry in the second semester.

Pidgeon and Andres (2005) also found that first-year students from UBC placed great value on professors who knew them by name and responded to inquiries promptly. One of their participants stated: "... when a professor knows you by name, it's easier to talk to them" (p.59). Additionally, participants in their study valued the smaller classes for the interaction with the professor and other students that such an environment allows. Larger classes do not provide opportunities to engage (Pidgeon & Andres, 2005). Faculty members who know their students' names and respond quickly to student inquiries are deemed to be more approachable and can help their students feel more supported (Pidgeon & Andres, 2005).

Feelings of academic integration with the Faculty of Dentistry were further strengthened by spending more scheduled class time within the dental building in the second semester. Casually encountering professors in the hallways contributed to participants' sense of belonging to the Faculty. Increased interactions with faculty inside and outside of the classroom setting facilitated feelings of safety within the classroom and improved faculty approachability. Thus, campus environment including the physical learning spaces and interactions with faculty members impacts students' feelings of academic integration. Chickering and Gamson (1987), McCormick et al. (2013), and Pascarella and Terenzini (2005) have demonstrated that interacting with faculty members outside of the classroom setting improves the campus and learning environments and increases students' levels of integration.

In addition to finding motivation to learn through developing relationships with their dental hygiene professors, participants also generally expressed that they were more motivated to learn in the second semester because they found the dental hygiene courses to be more interesting and relevant to their chosen profession. Some expressed frustration with having to wait until the second semester to learn about the profession of dental

hygiene; however, participants stated that their studies became more relevant and meaningful which further facilitated feelings of academic integration. Many former students stated they desired to excel as they started to envision themselves developing into health professionals. The smaller class sizes and relevant theory in the dental hygiene courses facilitated small peer group work learning activities that were interactive and meaningful and allowed for further connections to be formed between peers and professors.

Braxton and Hirschy (2005) state that the classroom serves as a site for the intersection of both social and academic components of the university experience for commuter students. Considering the classroom as a community facilitates meaningful connections between students and faculty. Faculty who intentionally engage students in learning activities such as peer group work, role playing, debates, and open discussions contribute to student persistence (Braxton & Hirschy, 2005; Kuh, 2009). Further, students who enroll in courses that involve active learning approaches are more likely to feel higher levels of connection to their peers and teachers and consequently greater feelings of academic integration and institutional commitment (Braxton & Hirschy, 2005).

Although participants expressed the benefits of social relationships with their peers at the university, their social environment and link to the institution were closely tied to the classroom and their academic learning communities. As Braxton and Hirschy (2005) theorized, participants' sense of belonging to the institution appeared to be closely associated with feelings of academic integration. Feeling connected and having frequent and meaningful contact with faculty members was found to be extremely important. These findings resonate closely with Braxton and Hirschy's (2005) theory of commuter student departure as they reduce the significance of on-campus social integration and emphasize the influences of organizational characteristics such as the classroom environment. Through emphasizing academic over social integration, Braxton and Hirschy (2005) recognized that commuter students' main interactions occur in the classroom. Aligning with Braxton and Hirschy's (2005) theory, what has been learned from my research is that classroom life, connection with faculty members, and the sense of belonging to an academic learning community have a significant impact in commuter

students' levels of perceived integration to the university and ultimately student persistence.

6.7 Institutional Commitment to Student Welfare

Braxton and Hirschy's (2005) theory proposes that students' perceptions of the institution's commitment to student welfare can affect students' perceived levels of integration. Students who perceive that faculty and administrators demonstrate respect and care about students' well-being and success are more likely to affiliate with members of the institution and feel integrated (Braxton & Hirschy, 2005). However, students who feel that institutional members (such as faculty members) do not support student welfare and success may feel distant with the campus community and have lower levels of integration and negatively impact students' levels of commitment to the institution and ultimately their willingness to persist (Braxton & Hirschy, 2005). Not surprisingly, when discussing the concept of perceived institutional commitment to student welfare, relationships with faculty members surfaced as the most predominant influencing factor for participants in this study.

A dichotomy emerged as most former students felt varying levels of support from the Faculty of Dentistry but did not feel supported by the university as an institution. Participants felt supported by their dental hygiene professors but many adamantly expressed a lack of support from their first year professors in the general studies courses outside of the Faculty of Dentistry. Underpinning this sentiment were participants' classroom experiences. Class size greatly influenced the connection that participants did or did not feel with their professors. The smaller the class size, the greater the connection students developed with their professors, and the greater the perceived institutional commitment to student welfare (see Figure 7).

As a result, most students expressed that they felt their dental hygiene professors were committed to their well-being and success and thus so was the Faculty of Dentistry. The smaller dental hygiene classes and receiving consistent supportive messages from their dental hygiene professors in these interactive classes facilitated feelings of support and approachability that extended beyond the level of the individual professor. If each

professor was perceived to care about student well-being, then students' extrapolated that feeling and perceived that the Faculty of Dentistry was committed to their success.

Conversely, participants generally felt that faculty members in the general studies courses outside of the Faculty of Dentistry did not care about their well-being and success. As discussed, the large class sizes inhibited the development of close relationships between students and their professors as well as classroom engagement. As a result, participants assertively voiced that their professors seemed disinterested in teaching and engaging with students and were generally unavailable. Students felt anonymous. Feeling disconnected with their general studies professors translated to the perception that the institution at large was disinterested and disengaged with its own students. In these first-year general studies courses, students' feelings of academic integration were low; consequently, so were their perceptions that the university was committed to their well-being.

Participants expressed that having professors who showed an interest in their learning in the smaller dental hygiene classes served as a motivator and enhanced their levels of classroom engagement and self-study behaviours. Institutions with faculty and administrators who are perceived by students to care about their learning and who show concern for student progress increase students' satisfaction levels and has shown to facilitate student engagement and success (Lewis & Miller, 2013; Voigt & Hundrieser, 2008). Kuh (2009) and McMormick et al. (2013) also assert that keeping students engaged in their classrooms and institution increases levels of student integration, motivation, and institutional commitment. In my study, faculty members who were perceived to be approachable largely due to feelings of connection developed inside and outside of the classroom were approached more frequently, students' inquiries were addressed more satisfactorily, and students felt more supported. Shora and others expressed that having a professor who cares was motivating. When participants' perceptions of the institution's commitment to student welfare increased, their levels of motivation, engagement, and desire to excel also appeared to increase. Thus, as Braxton and Hirschy (2005) theorized, organizational characteristics or constructs such as perceived institutional commitment to student welfare have a significant impact in

commuter students' levels of institutional commitment and willingness or motivation to succeed.

6.8 The Role of the Student

Throughout this narrative exploration, participants storied their journeys and challenges in their first year in the BSc program and identified barriers that they felt hindered their academic progression such as feeling academically underprepared during their transition from high school to university, the large class sizes and the associated difficulties connecting with many of their professors, and the lengthy commutes which interfered with their valuable studying and rest times. However, these former students also blamed themselves for their unsuccessful outcome and highlighted some lessons learned.

Despite the organizational or institutional challenges identified, participants recognized how they may approach their education differently going forward as a result of these experiences. In fact, most (70%) of the participants appeared to place the responsibility of their unsuccessful outcome on themselves. Firstly, they expressed that they should have allocated additional protected time towards studying their class notes and reading texts. Secondly, participants expressed that they should have been more resourceful in their search for academic support resources such as a teaching assistant or even a private tutor for some of their general studies courses. Finally, the former students articulated that they despite the large class sizes in many courses and the perceived inapproachability of many professors, they could have invested more energy into scheduling an appointment with the professor or could have made more efficient use of class time by asking questions in class. The need to take more responsibility and ownership for their own learning in their future education was the general sentiment expressed regarding their lessons learned. Participants used these lessons learned to help them successfully navigate through their subsequent educational programs.

Participants' propensity to blame themselves for their non-progression was a surprising finding, particularly considering the prior emphasis that participants placed on institutional variables such as large classes and disconnection with professors that they

felt impeded their learning and academic progression. The propensity to problematize student attrition on students has been noted in student dropout theories (discussed in Section 2.3) that place the responsibility on students to integrate or assimilate into their new academic and social environments (Bean & Metzner, 1985; Pascarella et al., 1983; Tinto, 1975, 1993) or that focus on the extent of energy that students devote to their activities (Astin, 1984). These theories tend to focus heavily on student characteristics and behaviours that influence their persistence. For example, one could attribute students' challenges to engage in the large classes and ask questions to their lack of self-confidence or self-efficacy. Students' sense of self-efficacy has been noted as a characteristic deemed important for student persistence (Bean & Eaton, 2000; Braxton & Hirschy, 2005). As stated in Bean and Eaton's (2000) psychological model of student retention, self-efficacy represents students' own perceptions of their ability to complete a task or reach a specific outcome. Over time, students recognize their own ability and the improved confidence and competence results in higher aspirations to persist (Bean & Eaton, 2000). Braxton and Hirschy's (2005) theory for commuter students also places emphasis on students' entry characteristics that includes students' levels of self-efficacy and academic ability in predicting success.

6.9 The Role of the Institution

Two of the most significant challenges that participants expressed in their journey as first-year students at UBC were feeling academically underprepared for university learning and the difficulty connecting with their professors in the large classes. As previously outlined, participants felt academically unprepared for the responsibility placed upon them as adult learners in university and expressed a lack of confidence and felt intimidated to ask questions in these large classes. These aforementioned student retention theories would appear to attribute students' low levels of self-efficacy and academic ability on the students themselves when entering university.

Are students' levels of intimidation and low self-confidence in the large classes a result of their characteristics they brought to UBC upon entry or a result of the institution's organizational environment? The answer may not be so binary; however, the

institution's role should be considered. That is, has the institution failed to create supportive learning environments through providing smaller classes in which entering students and faculty can develop meaningful professional relationships so that students feel safer asking questions? With regard to students' academic ability upon entry to UBC (described by participants as academic under-preparedness), are students fully responsible for their own academic ability and experiences in their prior education, or did their secondary school system and reported excessive assistance from their high school teachers fail to prepare them adequately for the independent learning environment at university? Can the university provide accessible support systems to assist entering students who are feeling overwhelmed and academically underprepared? These questions point to the need to shift the focus of the student dropout problem towards the role of the institution in supporting student success in higher education. As Pascarella and Terenzini (2005) noted, there has been a decline in the research of how the actions of faculty and administrators and the environments of the institution contribute to student success. So the discussion now turns to how the institution can better support entering students.

Although participants recognized that they needed to take more responsibility for their own learning as adults in higher education, they also recognized that UBC and the Faculty of Dentistry can strengthen its efforts in supporting student success. As outlined in Section 5.4, *Student Suggestions to Help Facilitate Success*, these former students identified several organizational characteristics that would have benefited their transition into university: smaller classes across all courses, additional outreach efforts from faculty and student services, and an increased awareness of support resources available on campus through workshops and pamphlets. These recommendations reflect participants' general dissatisfaction with large class sizes, the disconnection experienced from faculty and staff, and their lack of awareness of the support resources available within and outside of the Faculty of Dentistry. Through these suggestions arises a need to consider redeveloping organizational structures such as academic learning environments, student support services, and communication pathways to more effectively facilitate student integration and persistence.

Personal challenges for Shora and Kristine compounded difficulties experienced with integrating with peers and focusing on the academic demands of their courses. The passing of grandparents and the challenges associated with the ending of a long-term relationship were challenges identified as additional contributing factors that impeded their academic progression. Shora and Kristine expressed that having someone professional with whom to discuss these challenges and develop strategies to navigate through these emotional experiences at UBC would have been helpful. The university does provide such student support resources; however, these resources were clearly not sufficiently available and visible – a responsibility that arguably lies with the institution.

Braxton and Hirschy's (2005) student departure theory informed this research because they recognized the relevance and significance of organizational influences on commuter student persistence. Results from my study strengthen this theory's argument, as participants clearly expressed their own behaviours as well as the institution's challenging learning environment and often invisible support systems influenced their unsuccessful academic outcome. Institutions have an obligation to provide the appropriate environment to support students to engage academically and socially through effective outreach efforts of institutional agents (faculty and staff), infrastructure to engage first-year students in particular, and mindful practice in curriculum and pedagogical design (Nelson et al., 2012). Kuh (2009) also asserts that institutional policies and practices that cultivate high levels of student engagement have the most significant impact on personal development and learning in higher education. Making resources available and visible, organizing curriculum, and engaging students in the classroom are such institutional responsibilities that can enhance student engagement and success (Kuh, 2009). To retain students, university campuses need to develop and implement policies and activities that encourage, support, and nurture social and academic interactions between students (Andres et al., 2005).

An example in practice includes efforts to improve student retention at the University of Western Sydney where Scott et al. (2008) reported that the institution embraced ownership over facilitating students' social and academic integration through prioritizing the overall student experience. Student-centred institutional strategies

included: clear articulation of student expectations, prompt and detailed management of student queries, the presence of a supportive peer group, implementing a curriculum that employs a variety of interactive case-based exercises to support student teambuilding and friendship formation, assuring that no students feel isolated through providing an active social environment, and ensuring that no students feel unprepared through offering mandatory orientation and transition programs (Scott et al., 2008). As part of its student support and transition efforts, the university developed and distributed orientation and self-teaching manuals written by senior students from a similar educational background who successfully managed the transition (Scott et al., 2008).

Hossler et al.'s (2008) institutional *policy levers* such as guiding students to available resources on campus, providing workshops on stress management, and implementing a family orientation program provide additional examples of institutional efforts aimed at supporting students. Barefoot (2004) states that a number of institutions have sought to improve student retention through appointing a campus retention director. She notes however that charging someone with this responsibility may indeed mark the importance of this issue but it may also unintentionally leave other key institutional members feeling absolved of any responsibility for supporting student success. As emphasized previously, Barefoot (2004) also asserts that institutions should take initiative in the development of academic initiatives such as learning communities to foster student integration. Supported by Braxton and Hirschy's (2005) commuter student departure model as well as the empirical research reviewed above, lessons learned from my research point to the imperative role that organizational influences have on supporting student success and the need to augment institutional efforts at UBC to more effectively facilitate entering students' transition to the university that ultimately aim to increase student retention.

6.10 Summary of Discussion

The primary purpose of this chapter was to respond to the research questions that aimed to understand participants' transition into their first year in UBC's BSc program, the influencing factors that contributed to their academic performance and subsequent

dismissal from the university, and the support mechanisms and resources needed for entering students. The analysis within this discussion illuminated the lessons learned about students' experiences during their first year in UBC's BSc program. Participants' narratives provided insight into their challenges transitioning to university and throughout their first year that can help inform policy and practice within and outside of this institution.

Findings from this research were positioned within the context of Braxton and Hirschy's (2005) commuter student departure theory that informed this study as well as related empirical research. While Braxton and Hirschy (2005) identified several entry characteristics that influence student persistence in higher education, the characteristic from this model that greatly influenced these former students' challenges in their first year at UBC was their academic ability upon entry into the program. Framed within the concept of academic under-preparedness, participants' prior educational experiences in secondary school clearly appeared to underprepare them for the university culture of independent learning.

The importance of social and academic integration was reinforced in this study. Forming friendships was a priority and deemed critically important to foster feelings of social integration. The student-led establishment of academic learning communities had the greatest influence on friendship formation and social integration. The former students felt more challenged in their efforts to integrate academically with the institution. The large classes and the resulting challenge to feel connected to faculty members left participants craving a closer relationship with their professors. This student-faculty disconnection, particularly in the first semester, negatively affected students' feelings of academic integration and consequently their perceptions of the institution's commitment to student welfare. Feeling academically integrated and perceiving the institution to care about student well-being and success were found to be extremely important influencers that participants' described to be essential for their progression. External influences such as lengthy commute times and personal challenges were also found to impede these former students' academic performance.

As Braxton and Hirschy (2005) posited, classroom life plays a significant role in commuter student persistence. In their second semester, the former students expressed that feeling more connected with their dental hygiene professors and positive perceptions about their own Faculty caring about their success served as powerful motivators to commit and engage more with their learning. This study's findings in this regard align with Braxton and Hirschy (2005) who theorized that the greater the degree of students' academic integration and perceptions of institutional commitment to student welfare, the greater their subsequent commitment to the institution. The factors that had the greatest influence on student persistence stemming from the stories of these former students are outlined in Figure 9.

Even though these former students identified their own lessons learned and articulated areas in which they may have changed their approach or behaviour while enrolled in first year, they generally voiced that the institution can develop and implement additional strategies to facilitate students' transition to university. Lessons learned from these stories point to the greater role that the institution can play in supporting student success. Suggestions included expanding outreach efforts from faculty and staff to students as well as making institutional resources more visible. The concluding chapter that follows will offer several recommendations for institutional policy and practice that speak to these student suggestions regarding ways to enhance the student experience and how the institution can take greater responsibility towards strengthening student retention efforts.

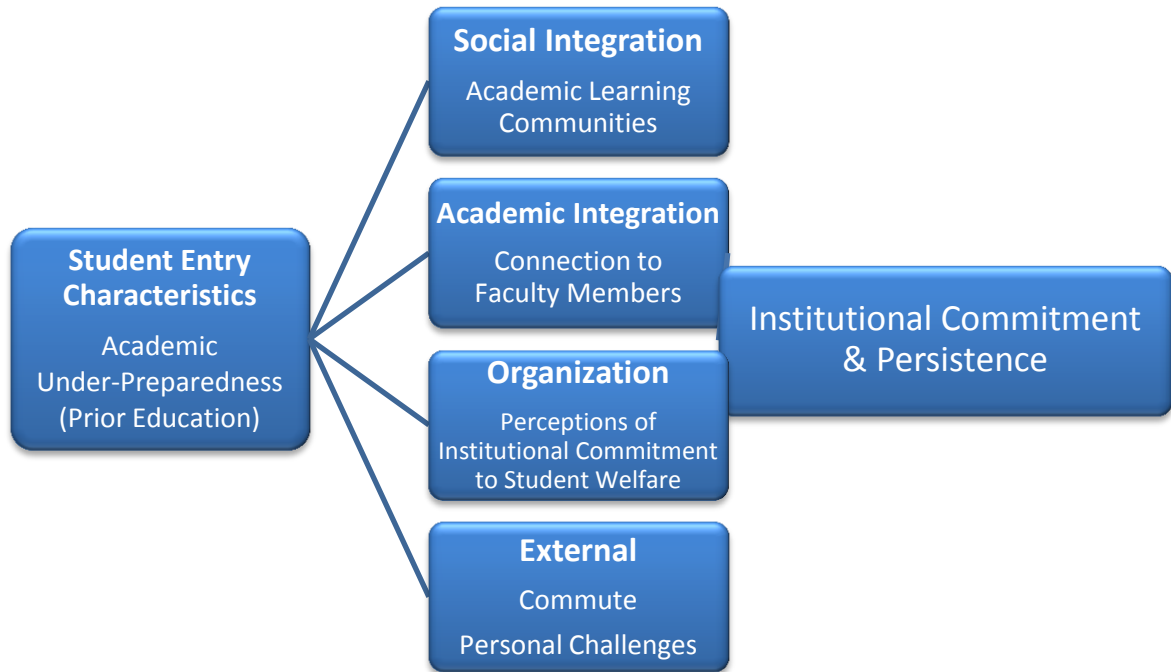


Figure 9. Influences on Student Persistence Emerging from former UBC BDS_c Students.

Chapter 7. Conclusion

This concluding chapter aims to highlight the significance and implications of the research conducted within this doctoral dissertation. The chapter begins with my own reflections and evolution throughout this journey illuminating the lessons that I have learned about myself as an educator and administrator in higher education. Stemming from my research findings, recommendations for institutional policy and practice will be presented. In addition, directions for future research regarding student retention will be discussed. Finally, the dissertation will conclude with closing reflective remarks that will capture the lessons learned from this research study.

7.1 Researcher Reflections

My own narrative involves a journey that has resulted in a heightened appreciation of the evolution of student retention and dropout theories in the higher education literature and the role that an institution and its agents have in supporting student success. My journey into the theoretical world of student retention began with arguably the most cited theorist, Vincent Tinto (1975). Consumed by the number of scholars referencing his works throughout the past several decades, the lens that I first had developed adopted a limited view informed solely by Tinto's (1975) integration theory. Armed with what I had first considered to be a well-cited thus appropriate theoretical lens with which to approach my research, my comprehensive exams and subsequent readings brought attention to the limitations of Tinto's (1975) work and the inapplicability of his initial propositions to the population of research participants in my developing study.

Facilitated through discussions with my research committee and suggested readings, I slowly began to develop a more critical eye through which I developed a more robust understanding of the limitations associated with an assimilationist theory that spoke to majority traditional students. Reading other works that critiqued Tinto (1975, 1993) and delving deeper into other sociological, psychological, economic, psychosocial, organizational, and critical theories allowed for the broadening and deepening of my

understanding of the diversity of student populations who need to be considered. Equally important was a heightened appreciation of variables external to the student that may influence student persistence. This theoretical exploration culminated in the selection of Braxton and Hirschy's (2005) theory of college student departure that informed my research. By no means am I claiming expertise in the area of student persistence in higher education; however, my more informed decision to use this theory demonstrates my growth towards a more scholarly approach when framing a research project through a theoretical lens that better recognizes student diversity and organizational variables involved in student experiences.

Through the various student dropout theories and related empirical research that I examined and through the ongoing discussions with my research committee, I also began to recognize the propensity within myself and in the literature to blame students for their inability to integrate or assimilate to the culture of a new foreign learning environment. I have grown more sensitive and aware of this tendency and have consequently noticed that the language used in my own practice environment often involves faculty and administrators attributing students' poor performances to challenges that lie with the student. I find myself privy to dialogue in which university agents are quick to conclude that students who do not progress are simply 'not cut out for university.' My responses to these remarks have evolved alongside my understanding of the important role that an institution plays in supporting its students. Whereas I would have typically agreed with such comments in the past, I now challenge these statements with questions aimed at examining the existence, relevance, and visibility of the institution's student support resources and policies.

Embarking on this research and listening to former students' stories of their own journey as first-year students at UBC has increased my awareness of this tendency to examine what can be changed about students' entry characteristics or behaviours. As I have listened to these former students, I have learned that the examination of characteristics, behaviours, policies, and practices needs to be placed more heavily towards the institution. As captured by HeavyRunner and DeCelles (2002), when post-secondary institutions regard student attrition as a manifestation of a lack of student

ability or commitment, the result is a failure to recognize the role of the institution and the disconnect between institutional values and students' values.

During my data collection and analysis, I was surprised to learn that despite the greatest of intentions and planning efforts, the student services personnel and resources that we do have were being under-utilized. Through the former students' stories and our conversations about why student support services were not being used, I was further surprised to hear that they found our resources to be invisible. Hearing their experiences was upsetting yet their stories serve as powerful impetus to re-examine how we can make such student support resources more visible and available to our students.

Positioning myself as their educator and director of the BDSc program, I could not help but feel that I had personally failed these students in providing the resources they needed. I started to develop a better appreciation through the lens of these former students that the faculty and university can strengthen its methods of communication and outreach to its students. Their experiences reminded me of my own experiences as a first-year student at UBC 20 years ago. As a teenager entering UBC directly from secondary school, I shared a similar sentiment of not knowing what resources were available on campus or to whom to turn during periods of uncertainty and distress. To realize that students are continuing to experience these feelings of uncertainty at UBC two decades later is disheartening.

I am not attempting to suggest that my students, as adult learners, should be absolved of any or all responsibility for their own success; however, I have grown to more strongly believe that the institution also has a responsibility to support and facilitate the success of its own students, particularly those who have not previously experienced a university learning environment. These former students have helped me understand that they look to an institution's agents for support and motivation. Strong sentiments shared regarding difficulties connecting with professors and feeling like just a number were difficult to hear yet enlightening. Appreciating that first-year students place great value in feeling connected with their professors will enable me to develop mechanisms aimed at connecting students with faculty early in the academic year. Hence, my own development

in understanding the influences impacting first-year student success has evolved. I have witnessed my own internal paradigm shift regarding problematizing student non-progression away from the students and towards the institution.

This shift in my thinking became evident in my own writing throughout this dissertation and was captured in an early memo note that I had written which I later revised. When I had first realized in my earlier interviews with these former students that the Faculty of Dentistry's support systems were not being used as frequently as I had hoped, I had written: *Since participants in this study did not make use of the university or faculty's student support services available, they found their primary source of support through one another.* The language I had initially used clearly placed students at the centre of this problem charging them with the sole responsibility to self-initiate and seek assistance. Through a lens that better recognized the role of the institution, I amended this statement to: *Since the faculty and university were not able to effectively offer student support services and personnel that students used, students found their primary source of support through one another.* This revised statement recognizes that making resources available and visible to students is a responsibility for which the institution should take ownership.

A symbiotic partnership in which both students and the institution are recognized as paramount and equal influencers on student success has been a significant lesson learned. I now consider students' characteristics upon entry into the BDS program and their subsequent behaviours to be equally important contributing factors of their own success as the institution's learning environment, agents, and resources. These former students articulated that the Faculty of Dentistry at UBC and the institution at large can develop additional programs and resources to help facilitate student success. I have learned that even though we (administrators) believe that these programs and resources are in place, these former students have expressed that they are not adequately visible. As a result, on-campus resources are not used to the extent that I had previously presumed within the population of BDS students. I should not have been surprised since my own experiences as a first-year student at UBC were much the same. Using this lens that more clearly recognizes the role of the institution, the recommendations that follow will

emphasize policy and practices that UBC and the Faculty of Dentistry can develop and implement to better support entering students.

7.2 Recommendations for Policy and Practice

The experiences shared by these former students have informed several recommendations for institutional policy and practice within and outside of the BDSc program at UBC and potentially in other educational institutions. These recommendations are strategies aimed at increasing attention to the overall student experience and improving student retention through adopting supportive, proactive, personal, and responsive programming, approaches, and resources. The following nine recommendations highlight the implications from this study for the BDSc program. They respond to the primary contributing factors for student non-completion in the BDSc program as learned through the students’ lived experiences and their resulting suggestions to help facilitate student success (see Table 3).

Table 3

Recommendations for Policy and Practice

Recommendation
1. Facilitation of Academic Learning Communities
2. Smaller Class Sizes
3. Contact with Faculty Outside of Classroom Time
4. Reposition Dental Hygiene Theory Course in First Semester
5. Learning Opportunities in the Dental Building
6. Student Services Year 1 Workshops
7. Development of Student Handbook
8. Senior Peer Mentorship
9. Connecting the Faculty of Dentistry with UBC

1. Facilitation of Academic Learning Communities

The university and the Faculty of Dentistry can take more responsibility for the organization of academic learning communities for its BDS_c students. This research has demonstrated that an academic learning community was the most significant facilitator of friendship formation and feelings of social integration. Participants organized themselves to sit together in the large first-year courses in Biology, Chemistry, English, and Psychology and continued these communities through study groups in which they remained with their dental hygiene cohort. The Faculty of Dentistry can further facilitate this process through implementing Braxton and Hirschy's (2005) concept of *block scheduling* in which administrators can pre-register (co-enroll) all of its entering dental hygiene students in the same sections of these large general studies courses to facilitate study group formation and social integration. The university can explore a similar process of co-enrolling its general studies first-year students who are registered in a number of similar courses within the same undergraduate degree. The Faculty of Dentistry's BDS_c Program Curriculum Committee can also explore reserving protected curriculum time and classrooms within the dental building in the first-year schedule dedicated to independent study time to provide first-year students with more opportunities and physical space to study in their learning communities.

2. Smaller Class Sizes

The university should arrange for smaller class sizes within its first-year undergraduate courses. Participants adamantly expressed that the large classes comprising hundreds of first-year students impeded their ability to connect with their professors and to engage with their learning. The most significant challenges behind the reorganization required to meet this recommendation may involve finding a sufficient number of qualified faculty members and classrooms on campus. Smaller classes would greatly enhance students' academic integration to the institution. Stronger connections with faculty in smaller classes would also enhance student perceptions of the institution's

commitment to student welfare which has been shown to increase students' motivation and commitment.

The BDSc program may wish to explore arranging the tutorial sessions scheduled within the Biology, Chemistry, and English courses specifically for its dental hygiene students. Participants reported that there were often too many students attending these tutorials and only one TA assigned to respond to student inquiries. Implementing these tutorials with one assigned TA for our dental hygiene students would increase accessibility to the TA, enhance social and academic integration through the strengthening of small academic learning communities, and may help add relevancy to the learning if each tutorial session emphasized how the material is relevant to oral and general health. A dental hygiene faculty member would likely need to develop a few cases for these tutorials to better integrate the foundational sciences with content that would be later introduced in the BDSc program.

3. Contact with Faculty Outside of Classroom Time

Informal non-classroom student-faculty contact time in higher education has been associated with student satisfaction, motivation, and persistence (Iverson et al., 1984; O'Keeffe, 2013). Participants suggested that the Faculty of Dentistry develop opportunities to increase the contact time with faculty outside of scheduled curriculum to strengthen connections between students and their professors within the BDSc program. Participants believed that growing more familiar with faculty members on a personal level would result in a safer learning environment as students may find their professors to be more personable, relatable, and approachable.

Expanding the Faculty of Dentistry's Faculty Advisor program would be one reasonable response to this suggestion. In addition to the faculty advisor group meetings once per semester that are currently scheduled, advisors should reach out to students in the BDSc program on an individual level and request a casual meeting to discuss issues related to supporting the student experience. To create a comfortable environment for each student, these in-person student-faculty conversations could occur over a casual coffee on campus and may be well received if not scheduled in the faculty member's

office in order to reduce power imbalances and formality. Former students had shared that individual meetings would be more tailored to each student's own needs. Participants also expressed that they would feel more comfortable sharing personal challenges that may be interfering with their academic responsibilities if these meetings were conducted individually compared with sharing such challenges in front of other peers in a group setting. The more personal individualized approach of supporting students may also send a stronger message about the institution's commitment to student welfare.

4. Reposition Dental Hygiene Theory Course in First Semester

Presently, first-year dental hygiene students enroll in DHYG 110 *Dental Hygiene Theory and Practice I* in their second semester. As previously outlined, within this course, students learn about the roles and responsibilities of dental hygienists in a variety of practice settings, the profession's code of ethics, ethical dilemmas, the dental hygiene competencies, and concepts of professionalism. As suggested by some of the participants, moving this course to the first semester may result in the following outcomes for students earlier in their journey: experience a small classroom environment to foster social and academic integration, increase students' interactions with their dental hygiene professors, enable the development of one's identity as a developing health care professional, and raise the level of relevancy and excitement for learning.

Some former students had expressed frustration with waiting until the second semester before learning about the profession of dental hygiene. These students voiced that they struggled to find relevancy in their education in their first semester since it was comprised of exclusively foundational science courses. Learning about dental hygiene theory earlier may likely provide students with the enthusiasm and motivation to excel and may remind students of their reasons for applying to the program and wanting membership in the dental hygiene profession.

5. Learning Opportunities in the Dental Building

The Faculty of Dentistry should consider increasing the number of learning opportunities that occur within the dental building particularly within the first semester

for entering students. Spending more time in the dental building was a suggestion that stemmed from the former students who expressed that they enjoyed seeing their dental professors and senior peers in the hallways between classes. Participants also communicated that spending more time in the dental building in their second semester helped strengthen a sense of community and belonging in the Faculty of Dentistry. This recommendation may be best accomplished through the implementation of the preceding recommendation regarding the repositioning of DHYG 110 within the first semester and ensuring that all classes for this course are scheduled within the Faculty of Dentistry building. The proposed Year 1 workshops, described below, can also be scheduled within the dental building.

6. Student Services Year 1 Workshops

Most former students in this study shared that they did not have any contact with student services at the university or in the Faculty of Dentistry and attributed this outcome to a lack of awareness of what student support resources and personnel were available to them on campus. Nine former students strongly recommended the implementation of effective mechanisms to ensure that students are made aware of the various support resources available within and outside of the Faculty. As they expressed, these mechanisms need to involve communication with students that is transparent, personal, and ongoing.

To respond to these participants' suggestions, the Faculty of Dentistry should develop and implement a series of Year 1 workshops for entering BSc students to be scheduled weekly throughout the first semester in the dental building. Guest speakers from UBC's Wellness Centre, Counselling Services, and Equity and Inclusion Office can attend in person, discuss their roles, and help first-year dental hygiene students better understand the services their offices provide. Concurrently, these student services professionals can facilitate interactive sessions which address stress management and resiliency, working in teams, and conflict management to suggest a few topics. Hossler et al. (2008) identified important *policy levers* that can increase student persistence such as implementing stress management workshops and facilitating interactive classroom

sessions. These series of workshops should also include academically oriented sessions aimed at facilitating students' transition into the university culture of independent learning. Dental hygiene faculty members should facilitate academic sessions on studying strategies, exam writing, and inform students of support services provided within the Faculty of Dentistry. These workshops would also serve the function of increasing faculty-student contact time in order to facilitate the building of meaningful relationships earlier in the BDS program.

Some former students had expressed their desire for the *Imagine UBC* orientation day event to extend beyond merely one day. Lindsay had shared that after this orientation day, she felt abruptly thrown into her academic responsibilities and did not respond well to the pressure. This series of workshops can be positioned as an extension of the first day of orientation activities that can span the first semester. Another benefit to this proposed workshop series would be the additional time that the first-year dental hygiene students would spend together and with faculty and staff. These series of workshops align with Barefoot's (2004) concept of *first-year seminars* that involves small groups of first-year students learning interactively together. Such a model serves to foster feelings of social and academic integration as well as perceived institutional commitment to student welfare (Barefoot, 2004).

7. Development of Student Handbook

The Faculty of Dentistry should develop a student handbook for all students to be distributed and reviewed on orientation day and revisited throughout the series of Year 1 workshops proposed above. This handbook should outline resources, programs, and key contacts available within and outside of the Faculty of Dentistry to support students. As reported by Scott et al. (2008) about practices at the University of Western Sydney, components of this handbook can be developed by senior students who have successfully navigated through the academic and social challenges experienced at UBC. The student handbook would help increase the visibility of resources available and would consolidate information in one place for students to review when needed. Students would each

receive a hard copy of this handbook, and an electronic copy can be placed online within the Faculty of Dentistry's password protected Intranet site for convenient access.

8. Senior Peer Mentorship

Nelson et al. (2012) and Kuh (2009) have asserted that institutions have an obligation to provide the appropriate environment to support students to engage academically and socially. With a particular emphasis on first-year students, they suggest creative curriculum design and innovative pedagogical practices as ways that institutional agents can better facilitate student engagement. In this spirit and since participants had expressed the satisfaction experienced from conversing with senior peers within the dental building, the BSc program should explore increasing extra-curricular and curricular opportunities for first-year students to interact and learn from their senior peers.

Extra-curricular opportunities can be supported by the Faculty of Dentistry's Student Services Manager who can develop and implement a peer mentorship program in which first-year dental hygiene students are paired with a senior student ("buddy" system) to more intimately address individual inquiries. The Student Services department can also schedule social events on campus during which first-year and senior dental hygiene students can socialize and concurrently offer academic strategies for success. Social events can be scheduled several times throughout the academic year. Within the BSc curriculum, more mentorship opportunities in which first-year dental hygiene students learn from their senior colleagues should be developed. Opportunities in which first-year students can join senior interactive classroom sessions, shadow their senior "buddy" in the dental clinic, and assist in planning education and health promotion sessions in the community setting may serve to further inspire and motivate first-year students and help them develop a greater sense of belonging to the institution.

9. Connecting the Faculty of Dentistry with UBC

These former students expressed difficulty with navigating through UBC's many resources and services. Most did not know where to go for help and were unaware of the

services available on campus. The Year 1 workshops proposed above will help increase entering students' awareness of many of these resources. However, institutional agents cannot always expect students to seek help in times of distress. Thus, there is a need to strengthen the connection between the Faculty of Dentistry's Student Services department with the university's student support resources and personnel so that students who are in distress can be proactively identified and approached.

In 2012, UBC developed an *Early Alert* program which aims to identify students in distress across campus through a university-wide coordinated approach. The *Early Alert* program provides a mechanism to collect and coordinate information about student concerns in order to offer the appropriate combination of services for each student. Through this program, faculty and staff are asked to report a student who they notice is experiencing academic or personal difficulties and identify their concerns through completing a secure online form. *Early Alert* advisors at UBC's Counselling Services review these concerns, identify the most appropriate resources, and contact students connecting them with these resources.

This program provides a centralized mechanism through which the various Faculties and disciplines on campus can remain connected by identifying common concerns about a student enrolled in courses across the university. *Early Alert* is under-utilized in the Faculty of Dentistry. This program provides an opportunity for the Faculty of Dentistry to communicate more frequently and effectively with the university's central support resources. Since the first-year students in the BSc program enroll in courses across many disciplines, the Faculty of Dentistry's faculty and staff are not usually aware of difficulties our students are experiencing in courses offered outside our Faculty until near the conclusion of the semester when mid-term and final grades are reported. This *Early Alert* program may help more proactively identify students who are experiencing academic and personal difficulties across courses earlier in the program. An integral component to this program's success lies with training faculty and staff. Therefore, the Faculty of Dentistry should arrange for an annual *Early Alert* training session for all faculty and staff to increase their awareness of the program and to support their ability to navigate through the reporting procedures.

These nine recommendations for policy and practice have attempted to respond to the main reasons for student non-progression informed by participants' lived experiences as first-year students in UBC's BSc program. Solutions for increasing student support and retention have been proposed that incorporate a range of strategies to help ensure that entering students feel more integrated with the university and more effectively supported by institutional agents and programs. These recommendations involve coordinated efforts between many institutional agents and require ongoing evaluation of their effectiveness. They serve to strengthen the role that the institution can play in supporting its students. The implementation and evaluation of these recommendations can serve to benefit students not only in the BSc program but also across the university and within other institutions of higher education.

7.3 Directions for Future Research

This section presents suggestions for future areas of research regarding student retention in higher education that speak to evaluation needs, student populations, and research methods. Firstly, while studies have examined factors that affect student persistence and institutions have implemented policies and programs to support student success (Nelson et al., 2012; Scott et al., 2008), more attention should be given to evaluating the impact of these institutional initiatives. Pascarella and Terenzini (2005) assert that institutions need to monitor the influence of institutional retention efforts to appreciate if these efforts make a difference in student success rates. Hossler et al. (2008) maintain that few assessments of institutional or program-specific retention initiatives have been conducted that can help inform administrators in their decision-making. Post-secondary administrators acknowledge that while they have developed and implemented student support initiatives, more research is needed that evaluates its effectiveness and measures the impact of student retention efforts on rates of student persistence.

Secondly, there is a paucity of research that has explored experiences of former first-year students who are no longer enrolled in their initial program of study (Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; Scott et al., 2008; Wilcox et al., 2005). This study served to add to this limited body of literature. Former students can provide unique

insights into their social and academic lived experiences and contributing influences that resulted in their dismissal or decision to withdraw. An additional challenge is the failure to distinguish dropout that results from voluntarily withdrawal compared to institutional dismissal. Distinguishing between students who dropout due to academic dismissal from those who voluntarily withdraw is important as reasons for leaving are vastly different (Tinto, 1975). This challenge may lead to contradictory findings and may mislead administrators in creating strategies and policies to support specific student populations. Those researchers who do explicitly identify the cohort of students they are studying have focused on students who voluntarily withdraw from higher education (Lehmann, 2007; Mestan, 2016; Meyer & Marx, 2014; Scott et al., 2008; Wilcox et al., 2005). Therefore, future research needs to explore student dropout resulting from institutional dismissal and engage with former students to better inform policies and resources that can appropriately support students who desire to remain enrolled in their initial program of study.

Another challenge with student populations is the scarcity of research that has investigated student retention in health-related professional programs, particularly within a Canadian context (Jeffreys, 2007; McMillan, 2013; Holt, 2005; Wray, 2014). Further examining student transition and persistence within Canadian professional undergraduate programs, such as dental hygiene and dentistry in particular, would provide additional insight into the potentially unique challenges experienced by this population. Research conducted on this population involves investigating student retention at a single-institution; therefore, multi-institutional studies may be able to demonstrate the common challenges experienced by health professional students provincially and nationally as students not only prepare to meet their program's demanding academic and clinical requirements for graduation but also their licensure requirements to enter professional practice.

Lastly, future research exploring entering students' experiences can employ a longitudinal design. Researchers should follow first-year students through their first year and triangulate findings through observations, student journaling, and individual or focus group interviews. Such a methodological approach would allow researchers to document students' experiences as they unfold rather than relying on recalling past events.

Repeating this design annually with each first-year student cohort would provide meaningful longitudinal data. In addition, institutions can follow their students who dropout to better understand if they leave the higher education system or reenroll in another institution. If students who transfer-out and are successful in the institution to which they transfer, then the former institution has an opportunity to learn about what changes in student behaviours or different institutional factors facilitated their former students' success.

7.4 Concluding Remarks: Lessons Learned

This narrative exploration into the lived experiences of 10 former UBC BDS_c students has provided meaningful insight into the challenges experienced by former first-year students in the BDS_c program. The research questions aimed to investigate: 1) students' experiences as they transitioned into their first year in the BDS_c program, 2) the influencing factors that contributed to students' academic performance and subsequent dismissal in their first year of study, and 3) the support mechanisms and resources needed for entering students.

Findings from this research clearly emphasized several key contributing factors that participants felt hindered their success. The former students identified their self-described academic under-preparedness for learning in university, the large university class sizes, challenges connecting with many faculty and staff, and external influences such as lengthy commutes and personal challenges as factors that contributed to their unsuccessful academic outcome. Lessons learned from this research included a deepened understanding of how the social environment for these former students was most strongly tied to the classroom. Academic learning communities and close relationships with faculty members were found to have a significant impact on students' levels of motivation and engagement. These learning communities had the greatest influence on friendship formation and social integration. The disconnection experienced with many faculty members led to challenges with feeling academically integrated that participants' felt negatively affected their ability to progress. Academic integration and student perceptions of the institution's commitment to student welfare had the most profound

influence on participants' sense of belonging to the institution and academic performance.

Lessons learned also include a heightened appreciation of the role of the institution and its agents in supporting student success. Stemming from this research clearly surfaced a greater need to develop and more clearly communicate additional organizational programming aimed at further facilitating student integration and persistence. The recommendations for policy and practice proposed in this dissertation attempt to respond to these student needs and their suggestions for mechanisms through which an institution can better support entering students.

Student retention and persistence to graduation are multi-faceted phenomena that require ongoing study. Future research considerations, particularly within a Canadian context, include evaluations of retention efforts, further exploration of experiences of students who have not progressed in their initial program of study, and longitudinal research designs. Results from this study have relevant implications for policy and practice within UBC's Faculty of Dentistry, the university, and other educational institutions in which lessons learned here can hopefully inform useful strategies to support student transition and success in higher education.

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APPENDIX A



Letter of Invitation

Project Title: “Enhancing Post-Secondary Student Support and Retention: Lessons Learned from the Storied Lives of Former First Year BDSc Students”

April 2016

Greetings, my name is Zul Kanji, and I am a doctor of education candidate at Simon Fraser University (SFU) in the Faculty of Education. As part of my doctoral degree requirements, I am conducting a research study exploring the research question: What are the lived experiences of first year students who do not progress to their second year of study in the Bachelor of Dental Sciences (BDSc) program at the University of British Columbia (UBC)?

The purpose of this research is to better understand the first year student experience in the BDSc program from the perspective of former students of this program. You are being invited to participate in this project, as a former student of the BDSc program, as I am particularly interested in learning more about your experiences as you transitioned into and through your first year of study. In this research project, I am hoping to identify what support mechanisms and resources are needed to support entering students into the BDSc program. As a doctoral student, and also the current Director and Year 1 Coordinator of the BDSc program at UBC, I have a high level of personal interest in seeing our students succeed. Your perspective is extremely valuable as sharing such experiences can assist the faculty and the program in developing appropriately tailored support mechanisms for entering students.

Invitation to Participate:

To participate in this study, you must be a former first year student of UBC’s BDSc program who did not progress to your second year of study in this program.

Participant Commitment:

In choosing to participate, you will be invited to be involved in two interviews. The interviews may be held in-person, through the computer (Skype®), or through the telephone with myself for approximately 60 to 90 minutes. The interviews will take place at a time and location at your convenience.

During the interviews, you will be asked to discuss your experiences as a first year student in the BSc program at UBC. The interviews will be audio-recorded with your consent, after which they will be transcribed verbatim. You will be offered the opportunity to review the transcript once it is complete and will be given an electronic copy of the final dissertation. The interview(s) will take place at a time and location at your convenience.

Remuneration for Participation

In appreciation for participating in this research, you will receive an honourarium of \$50 for each interview in the form of a Visa gift card. You will also be helping improve the faculty's student support mechanisms and assisting future students in the BSc program.

Benefits of Participating

By participating in this project, you will be helping improve the faculty's student support mechanisms and assisting future students in the BSc program.

Potential Risks of Participating

There are no foreseeable risks to you in participating in this study. Some of the questions asked may seem sensitive or personal but you do not have to answer any question if you do not want to.

Confidentiality & Ethics

If, during the course of the interview, you find that you do not wish to answer a particular question, you may decline to answer at any time. As well, you may decide to stop the interview and reconvene at a different time, and you are free to withdraw entirely from participating in this study at any time. Any information that you provide during the course of this study will be kept confidential, meaning there will be no information linking your name or other personal identifiers to the information you provide that may be shared in the dissertation or any subsequent publications or presentations about this research.

Instructions to Participate

If you meet the criteria for this study and are interested in participating, please contact me through e-mail at [...]@dentistry.ubc.ca or [...]@sfu.ca or via telephone at [...]. In addition to this introductory letter, near the time of your interview, you will receive a participant consent form with further information. You will be able to keep a copy of that form for your records.

Thank you for considering this request. I look forward to hearing from you.

Yours Sincerely, Zul Kanji, BSc, Dip.DH, MSc, RDH

APPENDIX B



PARTICIPANT CONSENT FORM

Project Title: “Enhancing Post-Secondary Student Support and Retention: Lessons Learned from the Storied Lives of Former First Year BSc Students”

Who is Conducting this Study?

Zul Kanji, BSc, Dip.DH, MSc, RDH
Principal Investigator
Doctor of Education Candidate, Faculty of Education , Simon Fraser University

Dr. Michelle Pidgeon, PhD
Faculty Supervisor
Associate Professor, Faculty of Education, Simon Fraser University

Dr. Michelle Nilson, PhD
Co-Investigator
Associate Professor, Faculty of Education, Simon Fraser University

Invitation and Study Purpose – Why Should You Participate in this Study?

You are being invited to participate in a research study because you have been identified as a former student of UBC’s Bachelor of Dental Sciences (Dental Hygiene) program and who was enrolled in their first year but not promoted to their second year of study.

The purpose of this research is to explore the experiences that our students confront in their first academic year in this program. We would like to learn more about the challenges experienced in first year university and the ways in which the Faculty of Dentistry and the university could support our first-year students through their first year of studies. We feel that you would have extremely valuable information to offer by sharing your thoughts, feelings, and experiences which will guide the development of appropriate student support mechanisms to then help future BSc students succeed academically.

How is this Study Done and What is Your Role?

If you decide to participate in this study, you will be involved with two interviews either in-person, on the computer through Skype®, or on the telephone by principal investigator to discuss your experiences in your first year of study in the BSc program. You will be given the interview questions shortly before each interview.

Each interview will take approximately 60 to 90 minutes. Interviews will take place at a time and location of your choice. The interview(s) will be audio-recorded and transcribed verbatim. You

have the choice not to be audio-recorded. You will also have the opportunity to review the transcripts to clarify or make any changes.

Participation Incentive

In addition to helping improve the university's student support mechanisms and assisting future students in the BSc program, you will also receive an honorarium of **\$50 for each interview** in the form of a Visa gift card for your participation.

Potential Risks of the Study

There are no foreseeable risks to you in participating in this study outside of those encountered in everyday life. Some of the questions asked may seem sensitive or personal but you do not have to answer any question if you do not want to.

Your Participation is Voluntary

Your participation is voluntary. You have the right to refuse to participate in this study. If you decide to participate, you may still choose to withdraw from the study at any time without giving reasons. You have the right to refuse to answer any questions, to reschedule the interview for a later date, to request that recording be stopped at any time, and to withdraw any information you do not wish to be included in this study. Should you withdraw, the information you have provided up to the point of your withdrawal will not be used in the data analysis, unless you consent to have it included.

Confidentiality

Information shared in this study will be used in the graduate student's thesis and, thus, may form part of a public document if published. All efforts will be made to ensure that your personal information and identity will be kept confidential. However, please note that telephone and email are not secure ways of communicating; therefore, confidentiality cannot be guaranteed.

All participants and documents will be identified only by a code number. Participants will not be identified by name in any reports of the completed study or in any presentation or dissemination of the findings (e.g., research papers, presentations etc.). All efforts will be made to ensure that you are not identified by others by changing or removing information that might otherwise identify you. Audio-recorded interviews will be transcribed either by the researcher or a third-party transcriber who will be required to sign a confidentiality agreement. Audio-recordings will be deleted immediately after interviews are transcribed. Electronic data records (transcriptions of interviews) will be stored in a password protected and encrypted file on a USB drive which will be located in a locked cabinet in the principal investigator's office for five years and will only be accessible by the principal investigator. After this time, the electronic files will be erased.

Study Results and Future Uses

This research is for the partial requirements of a doctoral degree and will form part of a thesis which is a public document. In addition, main findings from this research may be presented at academic conferences and published in higher education peer-reviewed journals.

Who Can You Contact if You Have Questions about this Study?

If you have any questions about this study regarding the purpose and procedures, please contact Zul Kanji, principal investigator, at [...]@sfu.ca or [...], or Dr. Michelle Pidgeon, faculty supervisor, at [...]@sfu.ca or [...].

Who Can You Contact if You Have Concerns about this Study?

If you have any concerns about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Jeffrey Toward, Director, SFU Office of Research Ethics, at jtoward@sfu.ca or 778-782-6593. You may also contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Participant Consent and Signature

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason and without any negative impact to you.

Your signature below indicates that you have received a copy of this consent form for your own records.

Your signature also indicates that you consent to participate in this study.

Participant Signature

Date (yyyy/mm/dd)

Printed Name of Participant

If you consent to participate, please sign and return this form to the principal investigator in person or through email at [...]@dentistry.ubc.ca or [...]@sfu.ca

Yours Sincerely,

Zul Kanji, BSc, Dip.DH, MSc, RDH Principal Investigator Faculty of Education, Simon Fraser University	Dr. Michelle Pidgeon, PhD Faculty Supervisor, Associate Professor Faculty of Education, Simon Fraser University
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APPENDIX C



Interview Guide

Interview 1

- Why did you apply to UBC?

- Tell me a little bit about your life, your upbringing, and background:
 - Age, culture, previous education, parents' education level, family's level of interest in your education and chosen profession, accommodation, work experience, financial circumstances, and anything else that you would like to share.

- What was it that brought you to the BSc program?

- If you can recall, can you share a little bit about what your experiences were like upon first arriving at UBC and during the first few weeks?
 - How were you oriented to the BSc program? Where did you live?

- Can you share a bit about your perceptions of the culture or climate of the program at that time? How did you meet people and form friendships? Were there other

students welcoming? Who were your friends and other sources of support? When did these friendships start?

- How would you describe how you interacted with faculty and staff?
 - Did this interaction or relationship change between term 1 and term 2?

- What support services were available to you at UBC? Did you make use of them?
Please share a time when you felt the need to use these services or why you did not and how that went for you? (probe: support services outside of UBC?)

Interview 2

- To what extent were you involved with on-campus academic and social activities?
 - What influenced this involvement? Did this involvement change over time?

- What are some examples of off-campus activities that you involved with? Were you employed at the time of your being enrolled in this program?

- Thinking back, what were your experiences entering term 2? How were these experiences different, if at all, compared to term 1?

- What factors do you feel hindered your progression to second year?

- At the time, did you feel that the institution and faculty were committed to your well-being and success? Why or why not? And, how do you feel about that now?
- What, if anything, do you think would have helped facilitate your academic success in the BSc program?
- Is there anything else that you would like to add or emphasize that would enhance my understanding of your first year experience?

Thank you very much for your time and sharing your experiences with me. I will be transcribing this interview and will have the transcript to you to review once that is complete. In the meantime, if you have any questions or if you think of something later that you would like to share, please feel free to get in touch with me.

APPENDIX D

Codebook / Coding Protocol:

This code book/protocol provides a set of instructions (dictionary) for each category that I am giving myself to ensure my coding is consistent and rigorous. This codebook will help build a consistent approach of assigning codes to categories (DeCuir-Gunby, Marshall, & McCulloch, 2011).

Reasons for Applying to UBC and BSc Program:	
Label/Category	Definitions/Codes
Prestige	References to status of UBC/university, perception of having a degree/credential, what others think, credibility, respect from others and self, top school, highly ranked
Career	Remarks related to career opportunities, future advancement, outside clinical practice, research, education, teaching, graduate studies, beyond clinician, greater impact as a health professional, own practice
Knowledge	References to the desire to learn more, breadth and depth of education, rigorous education
Family & Peer Influence	References to parent's education, peers' choices, expectations from others, beliefs, preferences, pressure
Access to Graduate Education	References to master's and doctoral degree, advancing education, bridge to grad school
Campus Environment	Large, beautiful, nature, green, diversity, meeting people, architecture, buildings, clubs, sports, teams, culture

Transitioning to UBC:	
Label/Category	Definitions/Codes
Emotions	Descriptions of feelings upon arriving: excited, fear, overwhelmed, lost, scared, uncertain, unsure, intimidated, hopeful, inspired
Online Communication	Remarks related to communication prior to commencement of term: emails from faculty, social media, Facebook group, letter
Imagine UBC Orientation	References to first day orientation activities: Imagine UBC, MUG, MUG leader, senior peer/mentor, orientation day, pep rally
Class Size	References to large classes, many students, felt like a number, lost, large lectures, large room, asking

	questions, difficulty engaging in learning, engagement
Connection to Faculty	References to professors, connecting with teacher, difficulty asking questions, responses to questions, availability, approachability, personal, office hours, TA
Academic Learning Community	References to sitting together, reserving seats, small group, study group, coping notes, study breaks, relying on each other in class, homework
Academic Under-Preparedness	References to different learning style, high school experiences, more work, less help, more independent, less feedback, uncertain about expectations, time management, understanding material, application of material, less memorization, different way of learning, adult learning, more ownership over education, more accountable, responsibility

Friendship Formation:	
Label/Category	Definitions/Codes
Imagine UBC	References to orientation day, MUG group, first day, small group of BDS Sc students
Academic Learning Community	Remarks related to study groups, sitting in class together, teaching each other, breaks together between classes,
Commuting	References to public transit, bus, skytrain, spending time traveling together
Social Clubs/Similar Interests	References to finding students with similar interests, similar culture, feeling at home, sense of belonging, joining clubs, social activities, going to dinners after class, socializing with other dental hygiene students after classes, friends from same background

Contact with Staff and Support Services:	
Label/Category	Definitions/Codes
Dentistry Student Services	References to student services in Dentistry, student services manager, emails from student services,
Faculty Advisor	References to assigned faculty advisor, advisor group meetings, discussions with advising group
Resources outside of the Faculty	References to UBC wide resources, counselling, student wellness, teaching assistants, tutorials
Did not Use/Contact	References to not being aware of resources, did not know who to contact, was not told/informed,

	unaware, did not need to use
Family/Friends/Community	References to using resources external to UBC: parents, siblings, friends from high school, church, community

Differences in Second Semester:	
Label/Category	Definitions/Codes
Growing Familiar/Accustomed	References to familiarity with teaching and learning expectations, campus environment, physical space, more familiar with instructors, exams, assignments easier, more prepared for how one is tested, learning from mistakes, comfort with surroundings, friendships made
Learning Relevancy (Dental Hygiene Courses) & Emotions	References to taking dental hygiene-specific courses, dental anatomy, dental hygiene, applicable learning, excited, motivated, relevant material, vision oneself as health professional
Connection with Dental Hygiene Faculty	References to building relationships with dental hygiene professors, small classes, group work, approachability, availability, caring, more exposure to DH faculty, role models, inspired
Feelings of Integration	References to feeling more a part of the Faculty, dental building, seeing senior dental hygiene peers, spending more time with dental hygiene faculty, small classes, more time with dental hygiene classmates

Factors that Hindered Progression:	
Label/Category	Definitions/Codes
Underprepared for University	References to feeling unprepared to learn on own, less help, less feedback, not prepared, independent learning, high school experiences
Large Classes	References to difficulty and discomfort in large classes; see descriptors above.
Commute	References to lengthy commute times, tired, not enough time to study, too much time on bus, skytrain, wake up early, arrive home late.
Self-Blaming	Remarks that relate to blaming oneself, my fault, personal distractions, boyfriend, did not take responsibility, adult learner, ask questions more, seek assistance more proactively