AN EXPLORATION OF FAMILY ACHIEVEMENT GUILT AMONG CANADIAN UNIVERSITY STUDENTS

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DEDICATION

To my parents who have devoted their lives to ensuring their kids live out their dreams and are the reason my whole world exists. Your unparalleled work and sacrifices are not lost on me. You have dedicated your life to my success and given me opportunities you never had; this thesis is a testimony to that.

ABSTRACT

As an understudied topic with no peer-reviewed Canadian literature, *family achievement guilt* is the socioemotional experience related to having educational opportunities not afforded to one's family members. In this study, 852 university students completed an online questionnaire that measured students' family achievement guilt, maladaptive outcomes, empathic concern, and cultural congruence. First-generation students and racialized students were found to have higher levels of family achievement guilt compared to continuing-generation students and White students, respectively. Correlation analysis showed that family achievement guilt had a positive association with depression, anxiety, stress, and empathic concern. Moreover, a negative correlation was found between family achievement guilt and cultural congruence. Using thematic analysis, seven themes were created to capture the qualitative data from the short answer question. Overall, the emerging area of family achievement guilt research calls for the attention of researchers, post-secondary institutions, and mental health professionals to better support a diverse student body.

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GLOSSARY

Family Achievement Guilt: The socioemotional experience some students might face related to surpassing or “leaving family” to attend university (Covarrubias & Fryberg, 2015).

First-generation Student: An individual who is pursuing higher education and whose parents do not have a four-year postsecondary degree (Spiegler & Bednarek, 2013).

Continuing-generation Student: An individual who is pursing higher education with at least one parent who has a four-year postsecondary degree (Lohfink & Paulsen, 2005).

CHAPTER 1: INTRODUCTION

University enrollment of students from diverse backgrounds is rising (McFarlan et al, 2018; Radunzell, 2018), creating a need to focus on the socioemotional experiences accompanying these students' university journey. In particular, educational expansion in enrollment has led to an increase in the number of first-generation students (Stebleton et al., 2014). The most prominent definition of a *first-generation student* is an individual who is pursuing higher education and whose parents do not have a four-year postsecondary degree (Spiegler & Bednarek, 2013; Stebleton et al., 2014). As the prevalence of this demographic group increases, the urgency to understand the unique experiences and needs of first-generation students becomes apparent.

First-generation students are known to have unique challenges and poorer academic and mental health outcomes compared to *continuing-generation students* (Covarrubias & Fryberg, 2015; Spiegler & Bednarek, 2013), those with at least one parent who has a four-year postsecondary degree (Lohfink & Paulsen, 2005). A higher risk of attrition and significantly lower rates of graduation are found among first-generation students compared to continuing-generation students (Engle & Tinto, 2008; Ishitani, 2016). First-generation students tend to have lower self-efficacy (Spiegler & Bednarek, 2013), lower self-esteem (Covarrubias et al., 2015), lower sense of belonging (Stebleton et al., 2014), less life satisfaction (Jenkins et al., 2013) and have a high risk for depression and experiencing negative feelings (e.g., stress and sadness) (Stebleton et al., 2014).

Family achievement guilt has been identified as a unique experience that may be contributing to the differences between first-generation and continuing-generation students (Covarrubias & Fryberg, 2015). Covarrubias and Fryberg (2015) developed the concept of *family* *achievement guilt*, which refers to the socioemotional experience some students might face related to surpassing or "leaving family" to attend university. This concept evoked the exploration of guilt among students again, an area of research that has been stagnant since the 1980s (Piorkowski, 1983). Although the reason is unknown, researchers were likely focused on studying phenomena other than guilt among students (Piorkowski, 1983). First-generation students may feel guilty when they recognize that they have privileges and opportunities that are not accessible to family members that did not receive higher education (Covarrubias & Fryberg, 2015). Family achievement guilt research is an emergent area of research. Only four studies completed in the United States (U.S.) have been identified that explored the concept of family achievement guilt (Covarrubias & Fryberg, 2015; Covarrubias et al., 2015; Covarrubias et al., 2020; Covarrubias et al., 2021). To my knowledge, there is no peer-reviewed Canadian research on the topic of family achievement guilt. In other words, the few studies that exist are all from the U.S. Specifically, the same primary researcher from the U.S., Dr. Rebecca Covarrubias, has conducted all the studies addressing this topic (Covarrubias et al., 2021). There is promising but limited evidence suggesting that first-generation students experience more family achievement guilt than continuing-generation students (Covarrubias & Fryberg, 2015).

Family achievement guilt among first-generation students has also been negatively associated with students' mental well-being. Given the rising concern about mental health challenges of university students nationwide (Mistler et al., 2012), and first-generation students being a fast-growing demographic in higher education, further exploration of family achievement guilt represented a promising area of study. Although the nature of family achievement guilt remains under-explored, limited research in this area has found that family achievement guilt has been associated with more depressive symptoms (maladaptive) (Austin et al., 2009;

Covarrubias et al., 2015) and high empathic concern (adaptive) (Covarrubias et al., 2020). Therefore, the current body of literature provides contradicting evidence regarding the outcomes associated with this type of guilt. Further, previous studies are limited by the absence of a psychometrically robust measure (Covarrubias and Fryberg, 2015; Covarrubias et al., 2015), a limitation that this study sought to address. Moreover, cultural incongruence between the student's culture and the independent culture of a university may play a role in family achievement guilt. One empirical study found that cultural incongruence was positively associated with family achievement guilt, but further exploration of this relationship was warranted (Covarrubias et al., 2020). Importantly, all the previous studies have focused on Hispanic and Latino populations (Covarrubias & Fryberg, 2015; Covarrubias et al., 2015; Covarrubias et al., 2020; Covarrubias et al., 2021). Consequently, additional research is needed to explore the experience of family achievement guilt among a diverse ethnic sample. Garnering a better understanding of family achievement guilt and its impact on students' well-being initiates the process of ensuring all students are being seen and supported. In addition, expanding the exploration of this concept to diverse demographic groups of university students in Canada is needed to illuminate the relevance of this concept beyond the Latino/Hispanic student population in the U.S.

Purpose Statement

The aim of this exploratory study is fourfold: (1) to determine if the prevalence of family achievement guilt differs between first-generation and continuing-generation students; (2) to determine if the level of family achievement guilt differs between various ethnic groups; (3) to explore the nature of family achievement guilt (maladaptive vs adaptive); and (4) to examine the relationship between family achievement guilt and cultural congruence. The overarching aim of the current study was to further explore the concept of family achievement guilt among students within the Canadian Context.

Significance

This study was novel and necessary to address some of the gaps in the literature and evidence regarding family achievement guilt. Given that this area of study is emergent, the prevalence and nature of family achievement guilt were unknown. Thus, exploration of this topic provided a unique contribution to the existing literature in this area. Additional research was needed in this area to expand our understanding of the student experience of family achievement guilt, potentially decrease attrition rates, and inform counsellors, social workers, high school educators, and institutions so students' unique needs can be addressed (Covarrubias et al., 2020). Understanding the psychological consequences of family achievement guilt also has implications for how university faculty, staff, and administrators might approach helping students through their university journey. Few, if any, existing services directly address the negative feelings associated with surpassing the achievements of one's family and leaving one's family behind in stressful conditions (Covarrubias & Fryberg, 2015). As an understudied phenomenon, the way first-generation students experience guilt throughout university has been underrepresented (Covarrubias et al., 2021). Thus, the findings from this study may have the potential benefit of informing the creation of services that address student needs that accompany the experience of family achievement guilt. Finally, this study addresses an apparent gap in the literature by providing an understanding of family achievement guilt within the Canadian context.

Research Questions

1. Is there a significant difference in the level of family achievement guilt between first-generation students and continuing-generation students?
2. Are there any significant differences in the level of family achievement guilt between different ethnic groups?
3. What is the relationship between family achievement guilt and maladaptive/adaptive outcomes?
    a. What is the relationship between family achievement guilt and negative emotional symptoms (maladaptive)?
    b. What is the relationship between family achievement guilt and depressive symptoms (maladaptive)?
    b. What is the relationship between family achievement guilt and anxiety symptoms (maladaptive)?
    c. What is the relationship between family achievement guilt and stress symptoms (maladaptive)?
    d. What is the relationship between family achievement guilt and empathic concern (adaptive)?
4. What is the relationship between family achievement guilt and cultural congruence?

CHAPTER 2: LITERATURE REVIEW

First-Generation Students

As universities increase enrollment of students from diverse backgrounds, and the general Canadian population becomes increasingly diverse due to immigration, the profile of the student body is also rapidly changing. Although Canadian statistics in this area seem to be absent, the number of first-generation students on campuses today is growing (Bown et al., 2005; Upcraft, 1996). In 2010, 40% of first-year undergraduate students in the U.S. identified as *first-generation students*, which was defined as neither one of your parents possessing a four-year degree (Davis, 2012). With first-generation students being a fast-growing demographic group in higher education, this statistic is likely an underestimation of the current prevalence (Covarrubias et al., 2020; Redford & Hoyer, 2017).

Existing literature lacks a clear consensus surrounding what defines a first-generation student (O’Shea, 2015; Spiegler & Bednarek, 2013). Some definitions are restricted to students who have no parent with *any* college or university experience (O’Shea, 2015). Other inclusive definitions include students who have parents with varying levels of college or university experience who did not obtain a four-year degree (Spiegler & Bednarek, 2013). Stebleton and Jehangir (2016) have included low income as a requirement to classify as a first-generation student. Despite the variability in definitions, most literature (e.g., O’Shea, 2015; Spiegler & Bednarek, 2013) suggests defining the term *first-generation student* as an individual who is pursuing higher education and whose parents do not have a four-year postsecondary degree. In line with the literature, this standardized definition will be adapted for this study because it allows the body of knowledge on this population to advance and overcome the challenge of inconsistent definitions (Peralta & Klonowski, 2017). Despite the inconsistent definitions of a first-generation student, researchers agree that this student population is unique in the ways outlined below (Peralta & Klonowski, 2017).

Researchers agree that first-generation students have different experiences and barriers in higher education programs. For example, they tend to experience mental health struggles, including, but not limited to, anxiety, socio-cultural dislocation, transition challenges, and academic stress (Weis, 1985, 1992). What follows below are the multiple ways in which first-generation students differ from continuing generation students as they navigate academic spaces.

General Characteristics

First-generation students are disproportionately overrepresented in disadvantaged income, racial, and gender groups and thus confront intersecting sites of oppression, which uniquely situate them in the broader context of educational stratification (Bugarin & Nuñez, 2001; Choy, 2001; Lohfink & Paulsen, 2005). Compared to continuing-generation students, first-generation students are more likely to be ethnic minority students (e.g., Black, Asian, and Hispanic students) (Bui, 2002). Moreover, first-generation students tend to be non-native English speakers and immigrants (Bui, 2002). They also tend to be less likely to receive financial support from their parents and have multiple responsibilities outside of university (e.g., family and work obligations), which limits their participation in the university experience. These students often live off-campus and take classes part-time to maintain full-time jobs, further limiting their academic and social integration (Engle & Tinto, 2008). Supportive peer relationships are important for adaptation to university (Swenson et al., 2008), and first-generation students have a harder time establishing and sustaining these relationships. This may be the case because first-generation students seem to have limited campus involvement, other responsibilities (e.g., full-time work, taking care of siblings), and must navigate cultural differences (Ishitani, 2016).

Compared to continuing-generation students, first-generation students tend to be older, female, have dependent children, be mature students who do not enter university directly after high school, and be financially independent from their parents (Iman & Mayes, 1999; Ishitani, 2016). Generally, first-generation students in the U.S. seem to not attend prestigious universities (e.g., Harvard, Yale, Stanford University), and often choose distance learning institutions or universities close to their homes. Quite often, the choice of institution is influenced by available financial aid and proximity to home and work (Pascarella et al., 2004; Spiegler & Bednarek, 2013). American and Canadian first-generation students tend to be overrepresented in business subjects and health sciences because of parental expectations, their definitions of success (i.e., becoming a doctor or lawyer), and their desire to work in high-paying fields (Chen, 2005; Lehmann, 2009). However, general characteristics is only one of the areas in which first-generation students and continuing-generation students differ.

Academic Preparedness

Existing higher education literature highlights differences in academic preparedness between first-generation and continuing-generation students (Atherton, 2014). Researchers consider factors such as grade point average (GPA) and type of course work completed in high school to assess academic preparedness (Atherton, 2014; Choy, 2001; Cushman, 2007). First-generation students tend to have a lower cumulative high school GPA and have completed less advanced placement courses than continuing-generation students (Atherton, 2014; Choy, 2001; Cushman, 2007, Lee et al., 2004; Saenz et al., 2007). Contributing to academic preparedness, first-generation students are less prepared psychologically (Hellam, 1996). This means that students, who are the first to attend university in their family unit, tend to not be aware of university challenges, the potential psychological impacts of these challenges, how they will react to such challenges, and how and when to seek support (Hellam, 1996). Lower levels of psychological preparation and lower high school GPA among this student group may be due to the lack of guidance and mentoring from their parents who did not attend university (Hellam, 1996). Typically, first-generation students have lower self-efficacy (Hellam, 1996) and self-esteem (McGregor et al., 1991) compared to continuing-generation students. *Self-efficacy* refers to an individual's belief in their capacity to perform necessary behaviours to achieve specific goals (Bandura, 1997), which in this context would be academic goals. Moreover, this group of students often lack the intergenerational benefits of information about university and do not have as much support from their families, as they are the first to experience the culture of university (London, 1989, 1996). In addition to academic preparedness, other studies have examined the academic performance of first-generation students (Pascarella et al., 2003; Riehl, 1994).

Academic Performance

First-generation students' academic performance at university is normally operationalized via academic grades and attrition rates. There are conflicting findings regarding the grades of first-generation and continuing-generation students. For instance, research conducted in the U.S. found that continuing-generation students had higher college grades compared to first-generation students (Pascarella et al., 2003). In contrast, Riehl's (1994) work in the U.S. discovered that the first-semester GPAs of first-generation students (2.34) were slightly lower than those of continuing-generation students (2.45) but there were no significant differences. In a Canadian university setting, Grayson (1997) also found that continuing-generation students had only a slight advantage in terms of GPA. In general, first-generation students can be said to have grades just as good or only slightly lower than continuing-generation students (Grayson, 1997; Pascarella et al., 2003; Riehl, 1994; Spiegler & Bednarek, 2013). This slight difference in grades may result from the fact that first-generation students come from families with a low understanding of academic norms, expectations, and demands compared to families in which at least one parent attended a university (Grayson, 1997). Other challenges related to working outside of school, supporting family, and taking care of siblings may also contribute to first-generation students having slightly lower grades (Ishitani, 2016). Although the difference in grades seems to be insignificant based on currently available research, attrition rates are another measure of academic performance (Ishitani, 2006).

Attrition, in this context, is defined as students leaving their initially enrolled institutions without returning to either the original or another institution. *Retention,* on the other hand, refers to students remaining enrolled in university until degree completion (Ishitani, 2006, 2016). Existing higher education literature suggests that generally, first-generation students are at a higher risk of attrition compared to continuing-generation students (Engle & Tinto, 2008). For example, research in the U.S. shows that around 70% of first-generation students persist after their first year, whereas for continuing students, this persistence is about 10 percentage points higher (Engle & Tinto, 2008). However, the retention rate is significantly lower, with only 27% of first-generation students compared to 42% of continuing-generation students graduating (DeAngelo et al., 2011). The risk of attrition is higher among first-generation students even when ethnicity, gender, high school grades, family income, and academic and social integration are controlled for (Choy, 2001; Ishitani, 2003). Research indicates that the lack of retention of first-generation students by universities is a significant problem (Pratt et al., 2019). Furthermore, the reasons behind attrition rates being higher among first-generation students compared to continuing-generation students is multifaceted, but the significance of this problem is clear. Martinez et al. (2009) found that the risk of attrition among first-generation students is partially mediated by full-time work. Student attrition risk factors, such as delayed enrolment, part-time enrolment, full-time employment, financial independence, and number of dependent children are more frequent among first-generation students, which provides a potential explanation for why attrition rates are higher for first-generation students (Seay et al., 2008).

Another factor that might play a role in high levels of attrition among this student group is the lack of experienced guidance from first-generation students' parents, who may be unfamiliar with the challenges that are encountered during university. Thus, these students may struggle to cope with the non-academic challenges that accompany the university experience (London, 1996). Thomas and Quinn (2007) conducted a qualitative study with British first-generation students and found the main contributors to withdrawal were: difficult transition to university, unclear academic expectations and lack of guidance, insufficient access to support, feelings of alienation and isolation, financial pressures, and too many other commitments. Moreover, the degree of involvement in university life has been linked to attrition rates (Spiegler & Bednarek, 2013). As previously mentioned, first-generation students seem to attend few extra-curricular events, as they are more likely to live off campus, have full-time or part-time employment, and have familial commitments, such as caring for a sibling (Spiegler & Bednarek, 2013). In addition to differences in academic performance, the differences in mental health between first-generation and continuing-generation students is a salient area in higher education discourse.

Mental Health

Although the university process entails both challenges and successes for most students, the educational journey of obtaining a degree appears to be quite arduous for some students, specifically first-generation students. Multiple facets of mental health have been examined to assess the mental health of first-generation students. For example, sense of belonging has been explored, as it is related to positive mental health because it provides the means through which one is connected to a community where they feel needed and valued (Stebleton et al., 2014). A lower sense of belonging is significantly related to higher levels of depression and stress. First-generation students have reported a lower sense of belonging, satisfaction, and self-efficacy compared to continuing-generation students (Stebleton et al., 2014; Wang & Castañeda-Sound, 2008). Using the Quality of Life Enjoyment and Satisfaction Questionnaire, Jenkins et al. (2013) found that first-generation students reported significantly lower life satisfaction than continuing-generation students. This may be due to higher education settings having specific norms, values, and behavioural exceptions that define the academic culture (Jenkins et al., 2013). Specifically, Jenkins et al. (2013) suspected that the lower life satisfaction among first-generation students may be due to *acculturation stress*. Coined by Berry (1970), this concept describes distress associated with the adjustment to a different culture. These students' parents often do not possess the knowledge and experience to prepare their children for the academic culture of tertiary/post-secondary education due to a lack of first-hand experience. Thus, acculturation stress may explain the lower life satisfaction found among first-generation students compared to continuing-generation students (Jenkins et al., 2013). Furthermore, first-generation students are more likely to report feeling stressed, depressed, or upset compared to continuing-generation students (Stebleton et al., 2014). They also indicated needing mental health services at a higher rate, but not accessing them, which might be due to a lack of knowledge in terms of how to access resources or the stigma associated with mental health (Stebleton et al., 2014). Additionally, first-generation students were found to have significantly less social support from family ($p < .001$) and significantly stronger PTSD symptoms ($p < .001$) compared to continuing-generation students (Jenkins et al., 2013). Based on the above research outcomes, first-generation students appear to have collectively poorer mental health, suggesting that there is a need to better understand and serve their unique needs (Jenkins et al., 2013).

However, a gap in the current literature surrounding first-generation students must be acknowledged, as the potential strengths of this population are consistently overlooked and underexplored. Based on my thorough review of the existing higher education literature, only a few studies that are primarily qualitative in nature, have examined the strengths of first-generation students. Qualitative studies have found that this group has more grit and self-authorship compared to continuing-generation students (Carpenter & Peña, 2017; O'Neal et al., 2016). *Grit* is known as having courage, strength, and persistence when faced with setbacks (Carpenter & Peña, 2017). Furthermore, grit is related to mindset; individuals who have a growth mindset tend to have more grit (Dweck, 1986). A *growth mindset* is defined as the belief that one's abilities are malleable through dedication and resilience (Dweck, 1986). *Self-authorship* refers to an orientation to knowledge construction and evaluation that is based on balancing one's understanding of the contextual nature of knowledge with personal goals, beliefs, and values (Carpenter & Peña, 2017). Based on the above research, being a first-generation student may give one the advantage of having more grit and self-authorship potentially making them more capable of responding to life's difficulties in a resilient way (Carpenter & Peña, 2017). The lack of attention given to first-generation students calls for mental health professionals to consider this population's diverse needs and how addressing these needs might help mitigate mental health challenges among students. To address the mental health concerns of first-generation students' mental health professionals must appreciate diversity. Mental health professionals include, but are not limited to, counsellors, psychologists, psychiatrists, social workers, and school counsellors. Throughout this study, the terms mental health professionals and counsellors will be used interchangeably.

Appreciating Diversity as Counsellors

The continuously increasing diversity of Canada's population requires counsellors to obtain knowledge and information about the issues faced by diverse groups they work with (Michalski et al., 2017). In 2021, three racialized groups made up 16.1% of Canada's total population (Statistics Canada, 2021). These groups were South Asians (7.1%; 2.6 million), Chinese (4.7%; 1.7 million) and Blacks (4.3%; 1.5 million; Statistics Canada, 2021). Additionally, users of mental health services are becoming increasingly diverse in terms of age, ethnicity, socioeconomic status, gender, etc., meaning that counsellors need to be aware of how well they are prepared to meet the needs of all clientele (Arthur & Januszkowski, 2001; Michalski et al., 2017). As outlined in the Canadian Counselling and Psychotherapy Association's ([CCPA], 2020), *Code of Ethics*, counsellors have an ethical obligation to accept and respect diversity. First-generation students are potential clients whom counsellors will likely encounter; as such they will be required to demonstrate cultural humility as mental health professionals working with these student's unique life experiences (e.g., family achievement guilt) (Arthur & Januszkowski, 2001; Covarrubias et al., 2021). *Cultural humility,* a term coined by Tervalon and Murray-Garcia (1998), involves being curious about and respectful of the client's cultural identity and not making automatic, general assumptions. Essential to practicing cultural humility with first-generation students, counsellors need to be self-aware and reflexive about how their culture and positionality in society might impact their own values, beliefs, and worldviews with this group within a multicultural context (Dixon & Chiang, 2020). This means that the importance of adequate education and effective training for counsellors who work with diverse clientele must not be overlooked and/or minimized. To illustrate, graduate students entering the profession often illuminate how they do not feel equipped to manage the diversity of their clients (Watkins et al., 2019). Thus, the responsibility falls on graduate programs, and the counselling profession as a whole to work in tangent with other services/providers/sectors to ensure care providers are properly educated to effectively address the needs of a growing student population who add significant value to the educational sector (Watkins et al., 2019). Overall, to inform the education and practice of counsellors and to better care for first-generation students, we must respect and appreciate the diversity and unique experiences of these students. Understanding the experience of family achievement guilt is one way counsellors can accept and respect diversity.

Guilt

Research stresses the importance of garnering a holistic understanding of first-generation students, including their socioemotional experiences, in efforts to better address their needs (Covarrubias, 2021). Family achievement guilt is the socioemotional experience that will be the focus of this study. Prior to discussing this topic, a foundational understanding of guilt is necessary. Theories of guilt, how guilt and shame differ, how guilt is experienced, and the adaptive and maladaptive nature of guilt, will be provided in the following sections. Guilt is a complex concept that has been debated for centuries (and continues to be) by philosophers, social scientists, and psychologists (Tilghman-Osborne et al., 2010). Initially viewed as an act of transgressing or breaking the law (Salzmann, 1983), the old English root has the double meaning of guilt and debt (Banmen, 1988). It was seen as the result of violating a specific rule that puts an individual in a place of being liable to penalty. Guilt has also been viewed as the result of sin, the transgression of one of God’s laws within the Judeo-Christian tradition (Banmen, 1988).

However, the theoretical conceptualizations of guilt outlined by psychologists (e.g., Sigmund Freud, Fritz Perls, and Carroll Izard) change the focus to feelings towards oneself when an act that is incongruent with internalized standards of moral behaviour takes place, rather than focusing on the act of transgression (Banmen, 1988).

Theories of Guilt

Theoretical exploration of guilt has its origins in the work of Sigmund Freud. In Freud's psychodynamic theory of personality, the human psyche consists of three separate but interconnected parts: the *id*, *ego*, and *superego* (Freud, 1946). The *id* is the primitive, unrestrained part of our unconscious that runs on pure desire, need, and instinct. Freud (1961) suggested that *id* includes our basic biological drives and is motivated by the pleasure principle, which seeks immediate gratification of all needs and wants. The *ego* is developed to help control the urges of the *id* and operates from the reality principle. The reality principle works to fulfill the *id's* desire but in realistic and socially acceptable ways. The *ego* functions to help the individual effectively adapt to reality, which includes accurately perceiving the world, controlling the drives, and responding to both external and internal stimuli (Freud 1961; Mishne, 1993). The *superego* is the moral compass that gives an individual a sense of right and wrong and aspires for not only realistic standards (*ego*) but moralistic ones. This part of the personality is developed between the ages of 3 and 5, when the child internalizes parental ideals and prohibitions and continues to develop over time. Freud described guilt as being important in the development of the *superego*. The experience of guilt is what enables the *superego* to provide direction, limit behaviour, and punish unacceptable behaviour (Deal, 2007; Freud, 1961). Freud also described guilt as a direct result of a resolution of the Oedipus conflict. During the Oedipus conflict, the child desires the opposite-sex parent and views the same-sex parent as a rival whom they wish to eliminate. To understand that a love relationship with the opposite-sex parent is not viable given their moralistic and realistic world, a child develops a sense of guilt (Freud, 1924; Brandell, 2004). Ultimately, Freud described guilt as a conflict between the *id*, *ego*, and *superego* (Deal, 2007; Freud, 1924, 1946, 1961).

Influenced by the work of Freud, Erik Erikson developed stages of psychosocial development that emphasize adaptive, positive character traits that can emerge when particular tasks are mastered (Erikson, 1963). The third stage of Erikson's theory of psychosocial development is initiative versus guilt. This stage occurs between the ages of 3 and 6, when children begin to initiate tasks and assert control over the world by directing play or other social interactions (Erikson, 1968). Children who are encouraged to explore and successfully negotiate internal demands and social expectations, will learn to plan and discover, which develops a strong sense of initiative. Children who are criticized or punished for taking initiative will develop feelings of guilt that will impact self-directed activities throughout life. The development of guilt will make the individual fear trying new things and feel like they are doing something wrong when they initiate something (Berzoff, 2011; Erikson 1963, 1968). Moreover, mistakes will be viewed as signs of personal failure and may leave the person with the sense that they are "bad". Erikson argued that guilt emerges as a consequence of failing to develop a sense of initiative (Erikson, 1963; Kugler & Jones, 1992). On the other hand, Klein (1948) illuminated the social nature of guilt.

Klein (1948) viewed guilt as a central element of love and reparation. The essence of guilt is that the harm done to the loved object is caused by one's aggressive impulses. Through observation of children and their mothers, Klein (1948) found that children exhibited destructive behaviours toward their mothers. The desire to undo or repair harm results from the feeling that the individual themselves caused it (i.e., guilt). Thus, the sense of guilt results in the reparative tendency, an idea that is preserved in modern views of guilt (Klein, 1948). Similarly, Lewis (1984) outlined the role of guilt in restoring affectional ties. He argued that guilt results from the need to maintain a good, loving image of a partner. This perspective emphasizes the social nature of humanity (Lewis, 1984).

Further, Fritz Perls (1951), who is the founder of gestalt therapy, provided an explanation of guilt that differed from Freud's and other psychoanalytic perspectives. Perls argued that guilt is just reserved resentment. He saw guilt as retroflected anger, an anger that we have towards ourselves. Perls said that society's demands, which we internalize, are just demands of our own. Humans adopt shoulds, oughts, and musts which create the grounds for guilt. People feel guilt when they do what they *want* and not what they *should, ought, or must.* Perls (1951) denotes *guilt* as a self-punitive, vindictive attitude toward oneself. Based on this understanding, guilt plays a vital role in people being moral agents and interpersonal individuals.

Contemporary theories of emotion have described guilt as one of our innate emotions that provides information about behaviour and motivates actions. For instance, Izard's (1977) theory of emotion suggested humans have ten primary emotions: interest, joy, surprise, sadness, anger, disgust, contempt, fear, shame, and guilt. In this respect, guilt represents an intrapersonal process with distinct facial expressions and specific neurophysiological activity (Izard, 1977). An extension of this emotional stance is that guilt emerges along with the self and a sense of responsibility regarding cultural rules in society (Izard, 1977). Roseman (1984) agreed that guilt is a negative emotion but stressed the role of appraisal of a situation that causes the emotion. Roseman's appraisal theory of emotions suggested guilt results from events that the individual has appraised as inconsistent with their motives (Roseman, 1984). Additionally, Weiner's (1985) attribution theory suggests that guilt arises when the individual views the cause of the action as being controllable and being a result of individual volition. To garner a complete understanding of guilt, it must be differentiated from shame.

Differentiating Guilt and Shame

Guilt and shame are often used synonymously, and their differences are constantly overlooked in society and in the psychology literature (Tangney et al., 2007). The reader is first provided with a few similarities between guilt and shame and then the important differences between these emotions follow. Both these emotions are moral emotions that are crucial for our decision-making process and in the regulation of our social behaviours (Kroll & Egan, 2004; Lewis, 1992). Differing from other emotions such as happiness and sadness, moral emotions require an understanding of other people's mentalities. Thus, they are also referred to as *social emotions* (Burnett et al., 2009). For both guilt and shame, an individual must understand that they have done something wrong, or have the intention of doing something wrong, based on an accepted standard of behaviour. However, it is important to tease out the differences between these emotions (Fromson, 2006). Historically, the popular assumption was that shame results from public observation of a transgression or failure, whereas guilt is a more private evaluation contingent on one's internalized conscience; however, there is an absence of empirical evidence supporting this belief (Tangney, 1998). Rather, there is substantial support for Lewis's (1971) argument that the fundamental difference between shame and guilt is the role of the self (Lindsay-Hartz, 1984; Tangney, 1992; Tangney et al., 1996). The experience of shame is focused on negative evaluations of *self* and makes an individual question how they can be such a bad person, whereas guilt focuses on the *act* and makes an individual question how they can do such a bad thing (Tangney, 1998). Thus, the focus on self versus behaviour is what differentiates guilt and shame (Tangney, 1998). Importantly, shame and guilt lead to contrasting behaviours. Therefore, a shame-prone person would try to hide or deny their wrongdoing, whereas a guilt-prone person would try to compensate or amend their wrongdoing. Shame evokes an avoidance response and in contrast, guilt appears to motivate people in a moral direction (Lindsay-Hartz, 1984; Tangney et al., 2007). Moreover, guilt stimulates a great deal of thought whereas shame tends to confuse one's thinking (Izard, 1977). From the above perspectives, one might argue that shame is more overwhelming, less consistently adaptive, and brings with it a range of defenses, whilst guilt seems to help orient an individual in a constructive manner (Tangney, 1998; Tangney et al., 2007). Thus, it is critical to differentiate between shame and guilt to avoid confounding the two emotions that seem to have distinct features.

How Guilt is Experienced

How guilt is experienced varies between individuals but there are some common characteristics. Izard (1977) noted that the emotion of guilt has a less distinctive facial expression than other emotions. However, a person experiencing guilt is likely to avoid eye contact by lowering their head, averting their gaze, and only taking brief glances at others. Guilt also makes an individual feel as though they are "no good". Anguish, remorse, and a sense of being wrong also accompany the experience of guilt (Kuntz, 1981). Guilt makes people want to act in a just way, punish themselves, and prevents people from acting in a way that will restore a sense of well-being (Bamen, 1988). Salzmann (1983) further claims that the experience of extreme guilt is comparable to self-accusation to the point where a person feels unworthy. This self-accusation is said to be more powerful than any accusation from others (Bamen, 1988; Salzmann, 1983). Thus, the severity of the guilt influences how the guilt is experienced. Similar to how the experience of guilt is inconsistent, the outcomes associated with guilt can be maladaptive or adaptive (O'Connor et al., 1997).

The Adaptive and Maladaptive Nature of Guilt

The literature discussing the nature of guilt appears to be inconsistent in that it has the potential to have both adaptive and maladaptive consequences (Kugler & Jones, 1992). Guilt experienced at moderate levels seems to have a positive social function, as it inhibits socially constructed unacceptable behaviour, or in the case of transgression, encourages reparation and seeking forgiveness (Ausubel, 1955). On the other hand, excessive guilt can result in disruptive experiences and clinical mental health disorders such as major depression disorder for some (American Psychiatric Association, 2013; Lewis, 1971). Given that guilt can be both adaptive and maladaptive, the construct is relevant for a variety of experiences, including students' experiences, and important to our understanding of morality, personality, and behaviour (Kugler & Jones, 1992). Descriptions of how guilt can be adaptive and maladaptive, respectively, follow below. There is evidence from psychologists suggesting that guilt is a more adaptive moral emotion that functions as a relationship enhancer (Covarrubias et al., 2020; Baumeister et al., 1994). Some of these relationship-enhancing functions include motivating individuals to treat their partners well, the avoidance of wrongdoing, and minimizing inequities by letting less powerful partners get their way (Baumeister et al., 1994). Within the interpersonal context guilt encourages an individual to apologize and reconnect (Baumeister et al., 1994). Further, several Canadian and U.S. studies have shown a positive correlation between guilt and empathy (Baumeister et al., 1994; Howell et al., 2012; Tangney, 1991, 1995; Tangney & Dearing, 2003). Individuals that have high levels of guilt tend to have greater empathy, meaning that these individuals have a better grasp on taking perspective (Tangney & Dearing, 2003). Potentially explaining the association between guilt and empathy, guilt appears to motivate corrective action because the tension caused by guilt tends to lead to a desire to apologize and repair the damage (Tangney & Dearing, 2003). The motivation for reparation associated with guilt is caused by the persistent focus on the wrongdoing and its negative consequences to others (Lewis, 1971; Lindsay-Hartz, 1984). Guilt has elements of self-awareness and facilitation of social goals by assessing actions against internal and social norms (O'Connor et al., 1997). Thus, the adaptive nature of guilt is apparent when examining social behaviour and interpersonal adjustment. On the other hand, there is also evidence to support the maladaptive nature of guilt (Kugler & Jones, 1992). Guilt may be an important psychological mechanism associated with depression. The relationship is so well accepted that the American Psychiatric Association's (2022) *Diagnostic and Statistical Manual of Mental Disorders* (5th ed., text rev.; *DSM-5-TR*) includes a sense of worthlessness or excessive or inappropriate guilt nearly every day in the depression diagnostic criteria (American Psychiatric Association, 2013). O'Connor et al. (2002) found that patients with depression experience significantly more guilt compared to non-patients ($F = 28.2$, $p < 0.001$). An association between guilt and several other internalizing disorders has been found, but the strongest association seems to be with depression. Some of the internalizing disorders that guilt has been positively associated with are anxiety, post-traumatic stress disorder, postpartum depression, and eating disorders (Beck, 2002; Bub & Lommen, 2017; Bybee et al., 1996; Kugler & Jones, 1992; Owens et al., 2009; Ratcliffe, 2010; Shafran et al., 1996). Based on the above research, it is evident that guilt can also have maladaptive consequences. Given that the reader should now have a foundational understanding of guilt, the next section will shift to an overview of guilt within the university context, followed by an in-depth explanation of family achievement guilt, the focus of this study.

Guilt in University Settings

Piorkowski (1982) is credited for initiating the investigation of guilt in university settings. During counselling sessions, she observed that low-income, African American first-generation students experienced *survivor* guilt because they witnessed others in their lives endure trauma (e.g., death, abuse) and stress (e.g., unemployment) that they had escaped by attending university. These students questioned why they got to escape traumatic events that led to death and incarceration when all or some of their family members did not. As a result of their academic success, these low-income, African American first-generation students felt like *survivors* because they *escaped* adversity at home (Piorkowski, 1983). For example, one adult male described feeling guilty during his counselling session because he was pursuing a college degree when he lost his brother to a drug-related crime. Furthermore, students experiencing this type of guilt experienced depressive symptoms such as feelings of worthlessness (Piorkowski, 1982). Piorkowski (1982) argued that when students become more successful than their families, they face the stress that comes with the realization that their family is struggling at home while they get the privilege of attending university. Additionally, students disclosed to her that they tried to minimize or hide their academic successes around family members because of these feelings of guilt (Piorkowski, 1982). Although the author’s work offers no empirical test of the concept, given that it was based on case studies of a clinical population, it sets the foundation for guilt to be explored among university students.

Building on the above research, other scholars (e.g., Whitten,1992; Spurlock, 1985; O’Connor et al. 1997; Austin et al., 2009) have explored the experience of guilt among non-clinical students, in samples that consisted of predominantly African American students. For example, Whitten (1992) found that African American students were more likely to compare their educational experience to those close to them (e.g., siblings and parents) and that the educational discrepancies were likely to result in guilt. Further, Whitten (1992) argued that this guilt of surpassing the academic achievements of family members or peers could lead to anxiety and depression. Whitten's (1992) conceptualization of survivor guilt among students was subtler, as it did not include the actual death of a family member but included guilt from engaging in activities (e.g., attending university and accessing campus resources) that close others did not get the chance to do. Similarly, Spurlock (1985) found that, for African Americans students, exceeding the academic achievement of close others, such as parents, was linked to psychological numbing, which is similar to survivor guilt. *Psychological numbing* is the tendency to withdraw attention from experiences that were traumatic and the diminished sensitivity to the value of life (Spurlock, 1985). Likewise, O'Connor et al. (1997) found that college students (n = 111) from various ethnicities (e.g., European, Black, Asian, Latino, and Filipino) reported feelings of survivor guilt when they attended university and academically outperformed close others, such as their parents. Moreover, Austin et al. (2009) conducted the only empirical test for survivor guilt in a university setting and found that it was positively correlated to depressive symptoms in a sample of African American college students. In their study, these researchers used the 22-item survivor guilt subscale from the Interpersonal Guilt Questionnaire, which defines *survivor guilt* as harming others by taking part in self-focused behaviours. It is important to note that the scale has only been validated with community samples and with a college sample that was predominately White, with no attention to first-generation status. Notably, the subscale items focus on guilt related to *strangers* who are less fortunate (e.g., "I am able to retain my good humour even after seeing beggars or homeless people"; "It does not disturb me to see very poor people" (O'Connor et al., 1997). Due to the type of items, the experience of guilt related to social inequity is measured instead of the guilt of surpassing one’s family. Thus, the scale does not measure family achievement guilt and would not be appropriate to use with a diverse student population. Furthermore, the lack of a comparison group inhibits understanding whether this guilt is unique to African American students (who may or may not be first-generation) or if it is a general experience for all students (Austin et al., 2009). A valid measure and a comparison group will be used in the current study to avoid these limitations.

Extending previous literature, London (1989) examined how first-generation students experienced guilt. Using interviews, London (1989) theorized that leaving for university led first-generation students to feel guilt for abandoning their family; he termed this sense of abandonment as *breakaway guilt*. He emphasized how familial relationships are disrupted when students become different in university by advancing their knowledge base, adjusting to university cultural norms, and creating new connections. Students feel guilty for not meeting goals of respecting and contributing to their family in the way they did prior to university (London, 1989). The research studies discussed above suggest that the feeling of guilt exists among university students, particularly among first-generation and socially marginalized students; therefore, additional research is warranted to examine the experience of guilt among the student population.

Family Achievement Guilt

The focus of the current study is family achievement guilt. To advance theoretical understanding, Covarrubias and Fryberg (2015) developed a concept known as *family achievement guilt,* which is a contextual extension of survivor guilt and breakaway guilt (Covarrubias & Fryberg, 2015). This specific concept examines guilt in relation to one’s academic success compared to family members’ success (i.e., parents and siblings). Covarrubias and Fryberg (2015) argue that for first-generation students, guilt in the university setting is related to surpassing accomplishments of family members (family achievement guilt), rather than strangers who are struggling. Specifically, family achievement guilt makes students feel guilty for having higher education opportunities and success than their family members, who do not have such privileges/prospects. It signifies a socioemotional experience that students might experience due to leaving family members behind to pursue higher education (Covarrubias and Fryberg, 2015). Students may feel that attending university gives them privileges that are denied to equally deserving family members and compromises their ability to continue to contribute to their family; for instance, some students can no longer care for their younger siblings (Covarrubias et al., 2019; Vasquez-Salgado et al., 2015). Thus, leaving family behind is not necessarily about physical distance but rather the feeling of pursuing one's own path of upward socio-economic mobility that is often limited for family members (Covarrubias et al., 2020). Differing from Piorkowski's theory of survivor guilt, family achievement guilt does not include cases of extreme family dysfunction (e.g., death, jail, gangs). Instead, it emphasizes having greater educational opportunities and academic achievements than family members (Covarrubias et al., 2015).

Facets of Family Achievement Guilt

Family achievement guilt, which can be experienced by any student, consists of four facets: *leaving family obligations behind, having more privileges, becoming different,* and *experiencing financial distress or other pressures* (Covarrubias et al., 2021). After conducting in-depth, semi-structured interviews with 34 low-income, Latinx and Asian first-generation students in the U.S., Covarrubias et al. (2021) were able to construct the four facets that are further expanded on below.

Leaving Family Obligations Behind. The first facet of *leaving family obligations behind* is affiliated with the guilt from not being able to assist with familial responsibilities or roles after the university transition. For example, students found that they could no longer fulfill important roles, such as lending financial support to parents, supporting siblings emotionally and academically, and attending family gatherings. This facet highlights the importance of family obligations and the emotional consequence of barriers preventing one from familial connection. Students experience tension when universities fail to acknowledge their heavy familial obligation, leaving students to pick between succeeding academically or helping their families.

Having More Privileges. The next facet of family achievement guilt is *having more privileges*, which captures the guilt that accompanies the realization that one has more educational, social, academic, or financial opportunities than one's family members. Many first-generation and continuing-generation students have newfound independence and freedom after attending university (Moreno, 2021); they become aware of their privileges when they recognize that their family did not have the same opportunities (Covarrubias et al., 2015). These privileges include the opportunity to focus on learning rather than working full-time, and the chance to explore new interests (Covarrubias et al., 2021). Moreover, when students engage in these privileges, they reported feelings of guilt, knowing that family members at home may be struggling (Covarrubias et al., 2021). Many students question why they get to have access to special opportunities that are not present for equally deserving family members. Thus, this facet of family achievement guilt has to do with the guilt that comes from students feeling wrong for tapping into their privileges/opportunities. To support this position, one individual noted their guilt by indicating: “[I] feel guilty because [I am] here and [I am] like living it up in college, right, and our family members aren’t here, they don’t have the same opportunities” (Covarrubias et al., 2021. p. 700). This quote could likely reflect the feelings of many first-generation students, who might have privileges associated with obtaining a post-secondary degree that their parents did not have. Along the same vein, students might notice that they get recognition for their academic success from teachers, employers, funders, etc., when their parents who work difficult jobs (e.g., service workers, labourers, and homemakers) are not praised for their work. This recognition relates to guilt, as students feel guilty because their work is appreciated but their parents' work is not. Another participant in the preceding study illuminated this experience of inequity by expressing: "I feel like my mom is so smart…and she doesn't get to have a certificate…those things make you feel very special and very worthy. That's one of the things I feel guilty about" (Covarrubias et al., 2021, p. 700). To combat this perceived inequity and guilt, many students hide or undermine their academic success and new opportunities (e.g., school events, extracurriculars, scholarship opportunities, and internships) when sharing with family members.

Becoming Different. The third facet is *becoming different*, which highlights guilt associated with growing distant or changing because of university experiences. Feeling distant comes from changes in interests, values, practices, or loss of connection. Many students interviewed by Covarrubias et al. (2021) highlighted that being a part of another cultural context (university) created tension with their families, as they were accused of leaving their culture behind. Some students reported that they did not feel understood when trying to communicate their university experiences, as their parents did not attend university. For example, one participant expressed the following: "I tell [my parents about my university experience] but they don't really understand. I think that's the only big part about [my guilt], that I see myself different from my family members" (Covarrubias et al., 2021, p. 699). Given that first-generation students’ parents are unfamiliar with the university culture, the becoming different facet is suspected to be more prominent among this student group (Covarrubias et al., 2015). Arguably, the becoming different facet highlights the guilt experienced when students change due to their engagement in a sociocultural context that is distinct from one’s home context (Covarrubias et al., 2021).

Experiencing Financial Distress or Other Pressures. The last facet is *experiencing financial distress or other pressures*, which depicts guilt related to the pressure to succeed and the awareness of the sacrifices one’s family has made to support one’s education. One participant in the research study noted her guilt by recognizing that she represents her parent’s investment: “I know that my parents have great expectations for me...I’m like their investment, we’re a low-income family...whatever money they save up they invest in me...I can’t afford to mess up because my parents put so much in me” (Covarrubias et al., 2021, p. 699). This quote suggests that feeling like an investment and the associated expectation to succeed is a key aspect of family achievement guilt. Many students reported feeling guilty about the high cost of university and not being able to contribute financially to their families. Moreover, students felt guilty that their parents made sacrifices and potentially neglected their own financial needs to support their education.

In summary, family achievement guilt is not just simply surpassing the academic achievements of family members. It is the socioemotional experience that includes the following factors: (a) leaving family obligations behind, (b) acknowledging that you have privileges and opportunities that family members do not, (c) becoming culturally different from loved ones, and (d) recognizing the sacrifices parental figures have made and continue to make for your academic success (Covarrubias et al., 2021). These facets of family achievement guilt may be present because of how important family is to certain individuals.

Importance of Family

The importance of family will be discussed in this section, as it likely contributes to the prevalence of family achievement guilt. Although the family context continues to be relevant for most university students, it may be more important for specific student groups such as first-generation students (Shim et al., 2010). Compared to continuing-generation students, first-generation students spend more time interacting with family members (Argyle, 1992; Markus et al., 2004). First-generation students may feel that their academic achievements may rupture their familial relationships that are rooted in collective family needs and responsibilities, making them more likely to experience family achievement guilt. Ethnic minority populations, such as Latino populations, are more likely to prioritize maintaining familial relationships and prefer the constant presence of family members due to interdependent cultural norms (Keefe, 1984; Santisteban et al., 2002). On the other hand, White and continuing-generation students are less likely to prioritize familial relationships and needs over their own needs (Ramirez et al., 2004; Stephens et al., 2012). Thus, continuing-generation and White students may report less family achievement guilt because of their family norms of pursuing individual achievements (Stephens et al., 2012). In addition to the importance of family, cultural congruence is suspected to play a role in the prevalence of family achievement guilt and will be expanded on below (Covarrubias & Fryberg, 2015).

Cultural Congruence and Cultural Mismatch Theory

According to Singer (1998), *cultural congruence* occurs when students experience a sense of security because the university context is commensurate with the learning environs of the cultures to which they belong. It is the idea that learning is most effective in classrooms that are compatible with the cultural communities from which students come from (Hines & Atherton, 2015). This concept implies that educators should identify cultural differences that are obstacles to learning, and then use this knowledge to inform classroom instruction and management approaches to better align with students' cultural expectations (Singer, 1998). Cultural congruence is a useful notion to add to educators' repertoires, as it provides a modest means through which student success can potentially be increased and levels of guilt can decrease (Hines & Atherton, 2015; Singer, 1998). Specifically, cultural congruence does not call for large changes in instruction and management but rather refers to minimizing differences in ways of speaking and social interactional styles in classrooms (Singer, 1998). Given that *becoming different* is one of the facets of family achievement guilt, it is likely that a lack of cultural congruence may contribute to the occurrence of this type of guilt. Connected to cultural congruence, cultural mismatch theory is discussed below to tie these concepts to the prevalence of family achievement guilt.

Generally, cultural mismatch theory, developed by Stephens et al. (2012), claims that inequity is inadvertently produced when the cultural norms in institutions do not match the norms of different student groups. A key tenet of this theory is that North American higher education institutions prioritize independent cultural norms over interdependent cultural norms that are common among underrepresented groups (Fryberg et al., 2013; Stephens et al., 2012; Stephens & Townsend, 2015). Specifically, universities are thought to be social constructions built on Western European perspectives that emphasize individualism and individual needs and achievement (Stephens & Townsend, 2015). According to this theory, many first-generation students and ethnic minority students would be disadvantaged because their interdependent cultural norms would not match the norms within the institution (Fryberg et al., 2013; Stephens et al., 2012). In other words, many first-generation students and ethnic minority students come from collectivistic cultures, and a cultural mismatch is one of the cultural incongruencies they must navigate. A cultural match between the student's and the university's norms increases the student's comfort, decreases stress, and increases performance (Stephens & Townsend, 2015). In the context of family achievement guilt, cultural mismatch theory suggests that students with interdependent backgrounds are more likely than students with independent backgrounds to experience guilt from pursuing their individual goals, such as attending university (Stephens et al., 2012; Stephens & Townsend, 2015). Thus, in theory, due to a lack of cultural congruence and cultural mismatch, first-generation students and ethnic minority students should experience more family achievement guilt (Covarrubias & Fryberg, 2015). The relationship between cultural congruence and family achievement guilt will be investigated in this study, as there is promising theory (e.g., Covarrubias & Fryberg, 2015; Fryberg et al., 2013; Stephens et al., 2012; Stephens & Townsend, 2015) to suggest that these two concepts are associated. Below is an overview of existing family achievement guilt research studies to provide the reader with an understanding of what has been done, where the gaps are, and what needs to be done.

Family Achievement Guilt Research Studies

Given that family achievement guilt is an emergent area of research, promising but limited empirical evidence which validates the theory is present. Literature suggests that first-generation students experience family achievement guilt more than continuing-generation students (Covarrubias & Fryberg, 2015). Covarrubias et al. (2015) examined how family achievement guilt impacts first-generation students' mental well-being and found this type of guilt to be maladaptive. Family achievement guilt was found to be significantly, although weakly, associated with more depressive symptoms ($r = .24$, $p < .001$) and lower esteem ($r = -.19$, $p < .05$) for all students. Moreover, first-generation students reported significantly more depressive symptoms at higher levels of family achievement guilt compared to continuing-generation students ($p < .001$) (Covarrubias et al., 2015). The association between family achievement guilt and depressive symptoms aligns with the limited existing literature regarding guilt in university settings. Piorkowski's (1983) clinical work found that depression may be a consequence of survivor guilt among African American students. Similarly, Austin et al. (2009) provided the only empirical evidence to link survivor guilt with depressive symptoms in a predominately African American student sample. However, this finding is not without limitations. Family achievement guilt was measured using three items from the original Interpersonal Guilt Questionnaire (focused on guilt in terms of social inequity not in relation to family) (Covarrubias et al., 2015; O'Connor et al., 1997). Thus, the lack of a psychometrically robust measure was identified as a limitation and the need to develop a stronger and more precise measure of family achievement guilt was highlighted (Covarrubias et al., 2015). Covarrubias et al. (2015) did also attempt to investigate ethnic group differences, however, their sample consisted predominantly of students of Mexican descent (71% of the first-generation student sample), which meant that they could not examine ethnic group differences. Another study conducted by Covarrubias and Fryberg (2015) found that family achievement guilt was higher in first-generation and Latino students compared to continuing-generation and White students. Again, this sample was not ethnically diverse, as it was predominantly comprised of Latino students. This limitation highlights the need for future research to obtain ethnically diverse samples to examine the extent to which family achievement guilt exists for different ethnic groups (Covarrubias & Fryberg, 2015). Given that first-generation students consist of primarily ethnic minority students, exploring the prevalence of this guilt beyond Latino students was crucial to further understand how family achievement is experienced by various groups (Bui, 2020). Moreover, Covarrubias and Fryberg (2015) used their scale adapted from the Interpersonal Guilt Questionnaire, which consisted of only three questions and yielded marginally satisfactory internal consistency values of .61 and .65 for the two studies. Internal reliability values below .70 are acceptable enough in exploratory studies of family achievement guilt, but a major barrier to future investigation of family achievement guilt was the lack of a psychometrically robust measure (Covarrubias et al., 2020).

To address the above limitation, Covarrubias et al. (2020) used a sample of 174 students to develop the family achievement guilt scale, a 34-item scale with four subscales to measure this type of guilt in a psychometrically sound way. The family achievement guilt scale has strong test-retest reliability, internal consistency, and convergent and discriminant validity, filling an important gap in this novel research area (Covarrubias et al., 2020). Furthermore, Covarrubias et al. (2020) explored the predictive value of family achievement guilt using this new measure. Higher scores on the *becoming different* subscale of family achievement guilt was associated with higher levels of incongruity between home and school ($p < .01$) (Covarrubias et al., 2020). This result provides the first empirical evidence for cultural incongruence being positively associated with family achievement guilt, an association warranting further examination. Inconsistent with previous studies that found an association between family achievement guilt and depression (Austin et al., 2009; Covarrubias et al., 2015; Piorkowski, 1983), family achievement guilt was found to have no association with depression when the new psychometrically robust scale was used (Covarrubias et al., 2020). Moreover, Covarrubias et al. (2020) suggest that family achievement guilt might be a prosocial emotion that has an adaptive function. Specifically, a higher level of guilt in the subscale of *leaving family behind* was associated with higher empathic concern ($p < .05$). The potential adaptive nature of family achievement guilt was further suggested by the findings of higher levels of guilt on the subscales of *leaving family behind* and *having more privileges* being linked to higher engagement in family roles ($p < .05$). Thus, family achievement guilt may be a prosocial emotion that evokes empathic concern and engagement with close others. Furthermore, this adaptive potential might explain the lack of correlation between family achievement and depression found in this study (Covarrubias et al., 2020). Overall, the nature of family achievement guilt (maladaptive vs. adaptive) remains unknown, as extremely limited, and contradictory evidence exists. This area of research is in its infancy, as there are only four studies that have explored this concept (Covarrubias & Fryberg, 2015; Covarrubias et al., 2015; Covarrubias et al., 2020; Covarrubias et al., 2021). Given the scarcity of studies in this novel research area, lack of diverse samples, studies solely conducted in the U.S., contradicting evidence, and the recent development of the family achievement guilt scale, the current study was warranted to further explore this phenomenon.

CHAPTER 3: METHODS

A cross-sectional study design was used as data were collected from study participants at a single point in time. As a quantitative study, numerical data collected from administering an online survey was the focus. However, the one short answer question included in the survey provided qualitative data that expanded on the quantitative data of the study. To further describe the methodology of this study the following four areas will be discussed below: (1) participants, (2) instruments and materials, (3) procedure, (4) methods of analysis.

Participants

The study used convenience, purposive, and snowball sampling techniques to recruit first-generation and continuing-generation students. The inclusion criteria consisted of the following: participants were current university students and proficient in English. The University of Lethbridge's SONA system for undergraduate students was used as the starting point for recruitment. SONA is an online platform that enables researchers to recruit undergraduate students as participants by managing research and recruitment in an online environment. I filled out a request for access to SONA form and gained permission to recruit participants through the SONA system (see Appendix A). Participants logged into the University of Lethbridge SONA system to sign up for the study. The SONA system screens participants for English proficiency when an account is created. Students recruited via the SONA system earned one course credit for completing the study. Given that the target population is all university students, SONA was an ideal and convenient tool because SONA is used to recruit undergraduate students.

Additionally, purposive sampling through social media, specifically Facebook, Instagram, and Reddit were used to recruit participants. Social media as a recruitment tool for research with humans is increasing in popularity (Kaplan, 2010). Social media enables a broad reach and was a promising way to identify and recruit diverse participants. Eligibility of individuals can be determined based on personal information making social media an attractive option (Kaplan, 2010). In short, Facebook, Instagram, and Reddit recruitment are cost-effective and fast ways to get participants from diverse backgrounds (Kapoor et al., 2018). The study link was posted on numerous Canadian universities' (e.g., University of Calgary, University of Alberta, University of Manitoba, and University of British Columbia) Facebook student pages such as buying/selling textbook pages, housing pages, university cultural club pages, international students association page, Indigenous student association page, specific program pages, and specific graduating years pages to share the study link. The researcher emailed multiple university clubs from various universities, who agreed to post the study link on their social media platforms. University of Calgary Biology Students Association, University of Lethbridge Nursing Student's Association, University of Alberta Indigenous Graduate Students' Association, and University of Lethbridge Art Society are examples of the clubs that agreed to share the study link. Similarly, the study link was distributed in various university Reddit forums (e.g., r/CanadaUniversities, r/UCalgary, r/uofl, r/uAlberta, r/OntarioUniversities, r/UBC, r/UofT, and r/firstgenstudents). The study link was also posted on the researcher's personal Facebook and Instagram page. To increase the sample size, snowball sampling was implemented, as media consumers were encouraged to share the link with other potential participants, they deemed suitable.

Instruments and Materials

The instruments discussed below were selected after a thorough search of the literature and examination of previous family achievement guilt studies.

Demographic and Student Information

Previous family achievement guilt studies (Covarrubias & Fryberg, 2015; Covarrubias et al., 2015; Covarrubias et al., 2020; Covarrubias et al., 2021) informed the selection and creation of demographic and student information questions (see Appendix B). Demographic questions were asked to assess the following variables: age, gender, ethnicity, income, employment status, living arrangements, immigrant status, and number of siblings. Additional student specific questions were asked to collect the following information: name of university, estimated cumulative GPA, academic level, area of study, and motivation for post-secondary to understand the characteristics of my sample.

First-Generation Student Status

To assess first-generation student status, the following question about parental/guardian education was used: "What is the highest level of education obtained by your parent(s)/guardian(s)?" Participants will be asked to select the option that applies for each parent(s)/guardian(s) from the following: 1 = *no education;* 2 = *less than high school*; 3 = *some high school;* 4 = *high school diploma*; 5 = *some college*; 6 = *two-year college degree*; 7 = *four-year postsecondary degree*; 8 = *graduate or professional degree* (Masters degree, PhD, JD, MD); or 9 = *I don't know*. This item was administered twice to inquire about each parent/guardian. Aligning with previous research (Covarrubias et al., 2020), students were considered first-generation if they reported that both parents/guardians did not obtain a 4-year postsecondary degree and continuing-generation if at least one parent/guardian had a 4-year postsecondary degree. This conceptualization aligns with the literature that defines the term first-generation student as an individual who is pursuing a higher education and whose parents/guardians do not have a four-year postsecondary degree (Peralta & Klonowski, 2017).

Open-Ended Family Achievement Guilt Question

An open-ended question adapted from Covarrubias and Fryberg (2015), was asked to gain further insight about students' experiences and how family achievement guilt has potentially impacted their student experience. Participants were asked to read a description of family achievement guilt and then indicate whether they have experienced this phenomenon. The question read as follows:

> “In university settings, sometimes students feel guilt for having succeeded/having privileges when close others, such as parents or siblings, have failed to succeed or lack similar privileges. They may ask themselves, “Why should I succeed or have privileges when my family has failed to do so?” Have you ever experienced this type of guilt in the university setting? If you have experienced this type of guilt, please describe your experience. Also, how has it affected you and your life as a student? If you have not experienced this type of guilt, please describe why this does not apply to you.”

Participants were also given the chance at the end of the survey to answer the following question: “Would you like to provide any additional info?”

Family Achievement Guilt Scale

The family achievement guilt scale is a novel 34-item self-report measure developed by Covarrubias et al. (2020) at the University of California to measure the family achievement guilt construct (see Appendix C). Two background studies were conducted to develop the family achievement guilt scale (Covarrubias et al., 2021). Adding to the quality of the measure, all members of the research team identified as first-generation students and had experienced some aspect of family achievement guilt during their academic careers (Covarrubias et al., 2020). The team drew from these personal experiences to inform the development of the scale. The first background study was a qualitative study that consisted of in-depth, semi-structured interviews and focus groups with first-generation students to determine the different facets of family achievement guilt. Thus, the scale is grounded in the voices of first-generation students and theory. Four facets of guilt were found: *leaving family obligations behind, having more privileges, becoming different,* and *experiencing financial distress or other pressures* (Covarrubias et al., 2021). The findings of these facets were used to generate the items on the scale. The second background study piloted the initial items of the scale among university students and was used to improve the response scale and ensure clarity of the questions for the final 34-item scale (Covarrubias et al., 2020).

Participants were asked to reflect on their university experience and rate the extent to which they agree with each of the statements on a 6-point Likert scale (1 = *Strongly disagree*, 2 = *Disagree*, 3 = *Somewhat disagree*, 4 = *Somewhat agree*, 5 = *Agree*, 6 = *Strongly agree*). An example item for each subscale includes: “I feel bad for focusing on school when there are problems at home” for *leaving family obligations*, “I feel bad that my family didn’t have the opportunity to go to university” for *having more privileges*, “I worry if my family thinks that I’m changing in university” for *becoming different*, and “I worry that I won’t be able to succeed in university for my family” for *experiencing financial distress or other pressures*. Higher scores indicate higher levels of family achievement guilt. A total family achievement guilt score can be calculated by summing all scores and subscale scores can be determined by summed scores for corresponding items (Covarrubias et al., 2020).

Exploratory factor analysis suggested a simple four factor structure that echoed the four facets found in the interviews and focus groups. A Kaiser-Meyer-Olkin test of sample adequacy was conducted and yielded a value of .98 (above the recommended value .60) and the corrected inter-item correlations were all above .48 (above the recommended .30). The first four mean eigenvalues were 13.73, 3.02, 2.57, and 1.94 and parallel analysis suggested they were too rare in a sampling distribution of eigenvalues to be due to chance, indicating a four-factor solution. The first factor, *leaving family behind*, explained the most variance (40.37%) and has 13-items. The factor *having more privileges* consists of 8-items and explained 8.87% of the variance. Next, *becoming different* consists of 8-items and explained 7.57% of the variance. Lastly, *experiencing financial distress or other pressures* explained 5.70% and consists of 5-items. Excellent/good internal consistencies are reported for each subscale, αs = .94, .93, .88, and .86, respectively. The family achievement guilt scale also demonstrates good test-retest reliability. In a 4-week retest interval, the *r* values ranged from .78 to .85. Discriminant validity was also tested by correlating family achievement guilt with self-efficacy (a concept that literature suggests should not correlate or weakly correlates with guilt). As predicted, no subscales were significantly correlated with self-efficacy. Evidence was also presented for convergent validity with at least one subscale correlating with family roles (parent and sibling focused), interdependent motive for going to college, and cultural incongruence. Overall, the family achievement guilt scale is a novel, valid, and reliable instrument that allows for the measurement of family achievement guilt in a psychometrically sound way (Covarrubias et al., 2020). The authors granted permission to use the family achievement guilt scale for the current study.

Cultural Congruity Scale

Developed by Gloria and Kurpius (1996), the Cultural Congruity Scale (CCS) will be used to measure cultural congruence (see Appendix D). This scale measures the level of cultural congruence or cultural fit students feel between their culture and their university culture. The

CCS was developed by reviewing conceptual and empirical literature and by reflecting on personal experience. Additionally, Ethier and Deaux (1990) developed a six-item Perceived Threat Scale that measured perceptions of threat among racial/ethnic minority students. These six items created the foundation for the CCS. Gloria and Kurpius (1996) then added additional questions based on the literature and their personal experiences as racial/ethnic students and professors/mentors of racial/ethnic students. The CCS assesses students' perceptions of the degrees to which their cultural values and beliefs fit with those of their university.

The CCS is a 13-item self-report scale scored on a 7-point Likert scale from 1 (*not at all)* to 7 (*a great deal*). Eight items (1, 2, 3, 4, 6, 7, 9, and 10) on the scale are framed to be reversed scored to minimize the possibility of a response set bias. A cultural congruity score is calculated by summing the responses and total scores range from 13 to 91, with higher scores indicating higher levels of perceived cultural congruity. Example items include: “I feel that I have to change myself to fit in at school” and “My cultural values are in conflict with what is expected at school”. The CCS was validated with 454 Mexican American undergraduate students from two major southwestern universities (University of California Irvine and Arizona State University). The mean reported for the validating sample was 71.88 (*SD* = 12.55*)*. Good internal consistency is reported for the CCS, α =.89, for Mexican American undergraduate students (Gloria & Kurpius, 1996). A subsequent study reported good internal consistency (α =.84) for a racially diverse sample of undergraduate students (Edman & Brazil, 2009). Good test-retest reliability, in a 2-week retest interval, was demonstrated by the relative stability, consistency, and repeatability of the reliability coefficients at time 1 (α =.75) and time 2 (α =.80) (Gloria et al., 2016). Convergent validity was assessed by correlating CCS with campus climate (r =.57) and student success (*r* = .48). Discriminant validity was reported by correlating CCS with well-being (*r* = .26). Gloria et al. (2016) also reported evidence for the predictive validity of the CCS. Thus, the CCS is valid and reliable (Gloria et al., 2016; Gloria & Kurpius, 1996). The researcher contacted the authors and gained permission to use the CCS for the current study.

Depression Anxiety Stress Scale – 21

The Depression Anxiety Stress Scale is a 21-item (DASS-21) self-report instrument that measures levels of depression, anxiety, and stress (see Appendix E). The DASS-21 is the short version of the DASS; the developers generally recommend this version for research purposes. The DASS-21 has the advantage of taking half the time to administer and multiple studies show that the DASS-21 has the same factor structure and similar psychometric properties to the full 42-item DASS (Antony et al., 1998; Henry & Crawford, 2005; Szabó, 2010).

Each of the subscales consists of 7-items: depression (DASS21-D), anxiety (DASS21-A), stress (DASS21-S). Items from the full DASS were selected based on good factor loadings, coverage of all subscales within each scale, and item means so that the DASS21 scores are very close to exactly half the full DASS score. The depression scale measures dysphoria, lack of interest/involvement, devaluation of life, hopelessness, self-deprecation, inertia, and anhedonia. The anxiety scale measures autonomic arousal, situational anxiety, skeletal muscle effects, and subjective experience of anxious affect. The stress scale assesses levels of chronic non-specific arousal: nervous arousal, difficulty relaxing, and being easily upset/agitated, irritable/over-reactive and impatient. Thus, questions assess the severity of the symptoms of depression, anxiety, and stress. Participants were asked to indicate how much each statement applied to them over a week, using a 4-point Likert scale (0 = *Did not apply to me at all*; 1 = *Applied to me to some degree, or some of the time*; 2 = *Applied to me to a considerable degree, or a good part of* *time*; 3 = *Applied to me very much, or most of the time*). An example item for each subscale includes: “I felt that I had nothing to look forward to” for depression, “I was worried about situations in which I might panic and make a fool of myself” for anxiety, and “I felt that I was using a lot of nervous energy” for stress. Depression, anxiety, and stress scores are calculated by adding up the scores for the relevant items and then multiplying by 2 so comparisons can be made to the DASS normative data. Higher scores indicated higher levels of depression, anxiety, or stress. The total DASS-21 scores together are also meaningful, as together they produce a measure of negative emotional symptoms. Thus, the total DASS-21 score and separate scores for depression, anxiety, and anxiety can all be assessed as variables (Lovibond & Lovibond, 1995).

Psychometric properties of the DASS-21 indicate excellent internal consistency for each scale and meaningful discriminations in various settings. Factor analysis with principal components on the DASS-21 suggested a three-factor solution (eigenvalues 9.07, 2.89, and 1.23), accounting for 67% of the variance. Overall, numerous studies suggest that the DASS-21 displays excellent factor structure (Antony et al., 1998; Henry & Crawford, 2005). Excellent internal consistency is reflected by the following Cronbach’s alphas for the DASS-21 subscales: .94 for depression, .87 for anxiety, and .91 for stress (Antony et al., 1998). Numerous subsequent studies have reported Cronbach’s alphas above .80 for each of the scales (Henry & Crawford, 2005; Norton, 2007; Szabó, 2010). Concurrent validity of the DASS-21 scales has also been assessed by reporting correlations with other validated measures of depression and anxiety. As expected, the DASS-D scale had the strongest correlation with the Beck Depression Inventory (BDI) (r = .79). The DASS-A correlated most highly with the Beck Anxiety Inventory (BAI) (r = .85). Lastly, the DASS-S correlated moderately high with the BDI (r = .69) and BAI (r = .70). Moreover, the DASS-21 had psychometric advantages over the 42-item version, as the

DASS-21 had a cleaner factor structure and smaller inter-factor correlations than the full DASS (Antony et al., 1998). Thus, the DASS-21 subscales are valid in measuring depression, anxiety, and stress. However, studies suggest that the scales together also tap into psychological distress or negative affect (Henry & Crawford, 2005; Osman et al., 2012; Sinclair et al., 2012). It should be noted that the DASS21 is a state measure, not a trait measure. Thus, a high test-retest correlation is not desirable (Lovibond & Lovibond, 1995). Lastly, the DASS-21 has been frequently used and validated in university student samples and ethnically diverse samples (Beiter et al., 2015; Camacho, 2016; Liu et al., 2019; Norton, 2007). In short, the DASS-21 is reliable, valid, and psychometrically robust. The authors have provided permission to use the DASS-21 for the current study.

Empathic Concern Subscale

The Empathic Concern Subscale ([ECS], see Appendix F) is a self-report subscale of the Interpersonal Reactivity Index, which is a widely used measure of individual differences in empathic orientation (Davis, 1983). The ECS is a 7-item subscale that "assesses 'other-oriented' feelings of sympathy and concern for unfortunate others" (Davis, 1983). Thus, the ECS was used to measure empathic concern, the feeling of warmth or compassion for others, as it is theoretically relevant to the potential adaptive nature of family achievement guilt (Howell et al., 2012). Participants were asked to rate the extent to which each item described them on a 5-point Likert scale from 1 (*does not describe me well*) to 5 (*describes me very well*). Example items included: "I often have tender, concerned feelings for people less fortunate than me" and "I would describe myself as a pretty soft-hearted person". Three items (2, 4, 5) on the scale are framed to be reverse scored to minimize the possibility of a response set bias. Scores were calculated by summing scores across items and higher scores indicated higher levels of empathic concern. Demonstrating good concurrent validity, the ECS is positively correlated with the Toronto Empathy Questionnaire (*r* = .74) (Neumann et al., 2015). Moreover, Cliffordson (2001) found substantial agreement between students' and their parents' responses in terms of empathy levels, indicating inter-rater agreement. Following an interval of 60 days, good test-retest reliability was demonstrated with *r* values ranging from .61 to .81 (Davis, 1983). Good internal consistency has been demonstrated in university samples with Cronbach's alpha coefficients of .80 (Baldner & McGinley, 2014), and .82 (Covarrubias et al., 2020). The ECS is widely used by researchers in many fields and is a valid and reliable measure of empathic concern (Davis, 1983). The author granted permission to use the ECS for the current study.

Procedure

The survey was created and administered via the online survey tool Qualtrics. Qualtrics was chosen because it is a secure platform that uses Transport Layer Security (TLS) encryption for all data and is hosted by trusted data centers. Pilot testing of the questionnaire occurred with Master of Education students and students from the public (*n* = 23) to ensure clarity of questions, gain insight into the completion time, and discuss any areas of improvement prior to administration. Based on the feedback revisions were made to increase the quality and clarity questions. For example, additional options were added for some questions and other questions were simply reworded.

The survey was administered after being reviewed and approved by the Research Ethics Board (Pro00124051) at the University of Alberta (see Appendix G). After gaining ethics review and permission to launch the survey on SONA, the study began in November 2022 and concluded in March 2023. When successfully recruited participants clicked on the Qualtrics link (via SONA or social media), they were prompted with an implied consent form (see Appendix

H) that outlined the study and provided a description of what is requested of the participant. Students who did not wish to consent to participate in the study were asked to click “no”, once they clicked “no” they were immediately redirected to exit the survey. Participants that provided implied informed consent were asked to answer one exclusion question: “Are you a current university student?”, and then complete a 93-item survey that consisted of demographic and student information items, the family achievement guilt scale, CCS, DASS-21, ECS, and two open-ended questions. The questionnaire took approximately 25 minutes to complete. Two attention check questions were embedded within the survey to assess if participants were thoroughly reading questions: this step was taken to ensure data quality. The two attention check questions were the following: “Please select agree” within the family achievement guilt scale and “Please select did not apply to me at all” within the DASS-21. Once participants completed the survey, they were thanked for their time and provided a debrief form (see Appendix I), provided with psychological support resources, and compensated in one of two ways. Participants that completed the survey through the SONA system were compensated with one course credit and participants recruited through social media or word of mouth were given the opportunity to enter a draw to win one of four $50 Visa gift cards. Those who wished to enter the draw were provided a separate link to enter their email. Once emails were received, a random online generator was used to select winners. In an effort to protect the anonymity of the participants, their emails were in no way connected to survey responses. Once a sufficient sample was collected, the study link was deactivated, and the data were exported to IBM SPSS Statistics (version 28) for statistical analysis.

Methods of Analysis

All analyses were conducted using IBM SPSS Statistics (version 28). A two-tailed alpha-level of 0.05 was used to identify all significant associations. Missing data were handled using listwise deletion.

Descriptive Analysis

Data were cleaned to consolidate variables, ensure consistent coding, assess completeness, and recode variables. Variables were recoded to be appropriate for analysis and to match operational definitions. Descriptive analyses were conducted to describe the characteristics of the sample. Frequencies and proportions were calculated for categorical variables and means and standard deviations for continuous variables.

Independent (Unpaired) Samples t-test

To address the first research question, an independent samples *t*-test was used to determine if there was a significant difference in mean family achievement guilt scores between first-generation and continuing-generation students. An independent samples *t*-test is appropriate to determine if there is a significant difference between the means of two groups. Four conditions are necessary to use an independent samples *t*-test (Howell, 2016). First, the samples must be independent. This assumption was met due to the study design and because the mutually exclusive nature of first-generation and continuing-generation student status resulted in two independent groups. The second assumption of scores being interval or ratio was satisfied, as family achievement guilt is a ratio, continuous variable. Next, scores are assumed to be normally distributed. Shapiro-Wilk tests were conducted to test the normality assumption. The results showed that the distribution of total family achievement guilt scores departed significantly from normality ($W(852) = .99$, $p < 0.001$). Due to the large sample size, visual interpretations of the histogram and the Q-Q plot was important. After assessing these graphical methods, the dependent variable of total family achievement guilt was deemed to meet the normality assumption to use a parametric test. The Shapiro-Wilk test did not show evidence of non-normality for total family achievement guilt scores for the first-generation level of the independent variable (W(357) = .99, p = 0.55). This result was echoed by the graphical methods of a Q-Q plot and a histogram. The Shapiro-Wilk test showed that the distribution of total family achievement guilt scores for the continuing generation level of the independent variable departed significantly from normality (W(485) = .98, p = <.001). However, the Q-Q plot and histogram reflected a normal distribution. For larger sample sizes, the Shapiro-Wilk test becomes very sensitive to minor deviation from normality (Ahad et al., 2011). Thus, it was important to incorporate graphical methods. Skewness and kurtosis values were also examined. According to the rule of thumb outlined by George and Mallery (2021), the normality assumption was met because no values exceeded the absolute value of 1 for skewness and absolute value of 2 for kurtosis. It should be noted that the normality assumption is frequently violated with little harm if the sample sizes of the two groups are large and about equal (Howell, 2016). Furthermore, according to the central limit theorem, moderately large samples will have sample means that are well-approximated by a normal distribution, even if the normality of the data is not met (Kwak & Kim, 2017). The fourth assumption is homogeneity of variance. Levene's test was used to test this assumption. There was homogeneity of variance, as shown by the Levene's test (F (1,840) = .004, p = .95). Given that the assumptions of an independent samples t-test were met, this parametric test was used to determine if there is a significant difference in mean family achievement guilt scores between first-generation and continuing-generation students. Cohen's *d* was calculated to measure effect size.

To answer research question four, an independent samples *t*-test was used to determine if there is a significant difference in mean family achievement guilt scores between White students and racialized students. Racialized students consisted of Arab, Black, Caribbean, Chinese, Filipino, Indigenous, Japanese, Korean, Latin American, South Asian, Southeast Asian, West Asian, and multiethnic students. The total sample size was 852 university students. Given the small number of students in particular ethnic groups (e.g., five Japanese students and 23 Indigenous students) in comparison to the 541 White students, I combined groups to create a dichotomous variable. I am cognizant of how this statistical choice fails to account for the nuances between different groups, but I wished to provide preliminary data that will inform future research. The four assumptions for an independent samples t-test were tested (Howell, 2016). The first two assumptions were met, as the samples were independent, and the dependent variable is ratio. The normality assumption was tested using the Shapiro-Wilk test, graphical methods (histogram and Q-Q plot), and skewness and kurtosis values. The Shapiro-Wilk test did not show evidence of non-normality for the distribution of total family achievement guilt scores for the racialized students level of the independent variable (W(311) = .99, p = 0.10). The Shapiro-Wilk test showed that the distribution of total family achievement guilt scores for the White students level of the independent variable departed significantly from normality (W(541) = .99, p = 0.01). The histograms and Q-Q plots at each level reflected a normal distribution. Similarly, the normality assumption was met, as no values exceeded the absolute value of 1 for skewness and absolute value of 2 for kurtosis (George & Mallery, 2021). Again, an independent samples t-test is robust with respect to violations of the normality assumption when the sample size is large (Kwak & Kim, 2017). Levene’s test was conducted to test the homogeneity of variances assumption. There was homogeneity of variance, as shown by the Levene’s test (F

(1,850) = 3.54, p = 0.06). Having met all the assumptions, it was appropriate to run an independent samples t-test to address the second research question and determine if there was a significant difference in mean family achievement guilt scores between White students and racialized students. Cohen's *d* was calculated to measure effect size.

Pearson Correlations

To address research questions two and three, Pearson correlations were conducted to assess the relationship between variables. The relationship between family achievement guilt (a continuous variable) and numerous continuous variables (negative emotional symptoms, depression, anxiety, stress, empathic concern, and cultural congruence) was assessed. Total DASS-21 scores created the negative emotional symptoms variable. To provide deeper insights, the relationships that the four facets of family achievement guilt had with adaptive outcomes, maladaptive outcomes, and cultural congruence were also explored. A Pearson correlation measures that strength and the direction of a linear association between two variables, making this test ideal for the accompanying questions (Dowdy et al., 2011; Howell, 2016). Four assumptions were tested and met before conducting Pearson correlations (Dowdy et al., 2011; Foster et al., 2005; Schober et al., 2018). First, the assumption that the variables of interest are measured on a continuous scale was met. The second assumption was that the relationship between the two variables is linear. Scatterplots showed that this assumption was met. Third, each variable was assessed for normality. Given my large sample size (*n* = 852) and Shapiro-Wilk tests being very sensitive to minor deviations with larger sample sizes, histograms, Q-Q plots, and skewness and kurtosis values were used to test the normality assumption (Ahad et al., 2011; Foster et al., 2005). The Q-Q plots and histograms for each variable reflected a normal distribution. Additionally, no skewness and kurtosis values exceeded the absolute value of 1 and

2, respectively, indicating that each variable was normally distributed (George & Mallery, 2021). Fourth, when performing Pearson correlations there should be no spurious outliers (Howell, 2016; Schober et al., 2018). The interpretation of box plots for some variables (i.e., empathic concern and cultural congruence) showed that outliers were present. *z*-Score analysis was used to determine where these outliers were extreme and of concern (Mowbray et al., 2019; Tabachnick et al., 2013). The standard absolute value of 3.29 was used to identify true outliers (Tabachnick et al., 2013). Two univariate outliers were identified for empathic concern both with *z*-scores of -3.47. One univariate outlier was found for cultural congruence with a *z*-score of -3.45. Case deletion was used to manage the outliers. This deletion technique is the most conservative and safest approach to outlier management (Tabachnick et al., 2013). Additionally, case deletion was appropriate because my sample size was large enough to withstand deletion without risking the chance of committing type II error (Mowbray et al., 2019; Tabachnick et al., 2013). Managing univariate outliers using this approach enabled the use of Pearson correlations (Schober et al., 2018). A Pearson correlation coefficient, *r*, was calculated for each relationship where values ranged from -1 to +1. A value of -1 represents a perfect negative correlation and a value of +1 represents a perfect positive relationship (Howell, 2016; Schober et al., 2018).

Hierarchical Multiple Regression

Separate hierarchical multiple regression analyses were conducted to further understand the relationship between family achievement guilt (independent variable) and negative emotional symptoms, depression, anxiety, stress, and empathic concern (dependent variables). Age, gender, income, ethnicity, and first-generation status were controlled for. Hierarchical multiple regressions were appropriate to determine how family achievement guilt predicts each dependent variable when controlling for sociodemographic factors and first-generation status. The hierarchical type of regression was chosen, where all predictors were entered in blocks so the selected variables could be controlled for. Step one included age, gender, ethnicity, and income; step two included first-generation status; and step three included family achievement guilt. There are several assumptions that were tested before performing the hierarchical multiple regression analyses (Dowdy et al., 2011; Foster et al., 2005). The first assumption that the dependant variables must be continuous was met for each analysis. The second assumption was that there are two or more independent variables, and this was the case as there were six independent variables in each model. Third, the variables of interest should have a linear relationship. This assumption was tested using a scatterplot and all scatterplots reflected a linear relationship. Fourth is the assumption of homoscedasticity which refers to equal or similar variances in the groups being compared. Homoscedasticity was checked and met by producing scatterplots of standardized residuals versus predicted values. Fifth, hierarchical multiple regression analysis assumes the absence of multicollinearity, meaning that independent variables should not be highly correlated. A correlation coefficient ≥ 0.80 is indicative of a high correlation between variables. The absence of multicollinearity assumption was tested using a correlation matrix and was met, with all correlation coefficients being < 0.80. Variance inflation factor (VIF) values were also computed to assess multicollinearity. A VIF value > 10 indicates that multicollinearity is present, and that the assumption is violated. All VIF values were < 10. Sixth, residuals (errors) should be normally distributed. This assumption was tested and met using histograms and Q-Q plots of standardised residuals. After meeting all the assumptions, hierarchical multiple regression analysis was deemed to be suitable for research question two, to determine if family achievement guilt explains a statistically significant amount of variance in numerous dependent variables after controlling other variables (Dowdy et al., 2011; Foster et al., 2005). Specifically, to answer research question two, these analyses gave insight into the relationship between family achievement guilt and maladaptive and adaptive outcomes.

Thematic Analysis

For the open-ended question, thematic analysis was used to analyze participants' responses. The short answer question explored how family achievement guilt has or has not affected the individual and their life as a student. Thematic analysis is a theoretically flexible qualitative analytic method widely used in psychology (Braun & Clarke, 2006). This research method is used to identify, analyze, and report patterns (themes) within data (Braun & Clarke, 2006). The researcher plays an active role in the process of analysis, as the researcher generates themes by immersing themselves into the data (Braun & Clarke, 2006). Furthermore, to ensure thematic analysis was conducted in a deliberate and rigorous way, several choices were made regarding what approach to take, and an ongoing reflexive dialogue was employed (Braun & Clarke, 2006). There are many different approaches to thematic analysis; thus, it is important to clarify the approach used to inform this study. An inductive, semantic approach was used for this study. This approach is also known as reflexive "Big Q" thematic analysis where the researcher adopts an organic approach to theme development and quality coding results from the depth of engagement with data (Clarke & Braun, 2018). An inductive approach entails a coding process where the researcher is not trying to fit the data into a pre-existing theory, but rather taking a bottom-up approach where thematic analysis is data-driven (Braun & Clarke, 2006; Patton, 1990). This form of thematic analysis was appropriate because no specific research question was tied to these data and this area of research is in its infancy (Braun & Clarke, 2006). A semantic approach was taken where themes were created based on the explicit meaning of these data

(Braun & Clarke, 2006). This choice was appropriate, as the depth of the data was limited by the fact that the data came from short answers rather than an interview.

The six phases of analysis outlined by Braun and Clarke (2006) were followed to ensure the analysis was rigorous. The six phases are: (1) familiarization with data, (2) generating initial codes, (3) generating themes, (4) reviewing themes, (5) defining and naming themes, (6) producing the report (Clarke & Braun, 2018; Braun & Clarke, 2006, see Appendix J). These phases were used as guidelines and analysis was a recursive process where there was back and forth movement through the six phases. A qualitative analysis software was not used, rather I manually completed my analysis to immerse myself in the data.

For the first step of familiarizing myself with the data I read over my data several times, searched for patterns, and made notes of my initial thoughts. As suggested by Braun & Clarke (2006) I read in an active way and looked for patterns which allowed for me to became familiar with the depth and breadth of the content. Although this data engagement process was time consuming due to the large sample size, this phase was the backbone for the rest of the analysis.

The second step was the generation of initial codes. I worked systematically through the entire data set and gave equal attention to each response to identify basis units of meaning of repeated patterns (themes) in the data set (Braun & Clarke, 2006). Interesting semantic content was identified, and codes were applied to short segments of data. I highlighted text and used post-it notes to keep track of codes as they came up. During this phase, I was sure to not ignore contradiction, as codes and theme should not overlook tensions and inconsistencies within the data set. For example, I coded for positive and negative emotions.

Third, I generated themes using a bottom-up approach where the analysis was driven by the data itself. In other words, due to the limited research on the topic of family achievement guilt an inductive approach was taken where I did not try to fit the data into a pre-existing theory (Braun & Clarke, 2006). However, I acknowledge that qualitative work is inherently influenced by the researcher's lived experience and assumptions because the researcher plays an active role in the development of themes. Codes were analyzed and combined to form overarching themes. Some initial codes such as *Motivation* went on to form a main theme, whereas other codes (depression, anxiety, stress, and low self-esteem) went on to create the *Mental Health Struggles* theme. In short, following Braun and Clarke's (2006) suggestions some codes were promoted to themes and similar codes were clustered to generate themes. If a code was broad enough to be a theme it got promoted and if codes were similar, they were combined to form an overarching theme.

For the fourth step, I reviewed the themes generated in the third step. Some themes were removed as there was not enough data to support them, or the data was too diverse (Braun & Clarke, 2006). Other themes were combined due to similarity. For example, *Viewing Oneself as an Investment* was an initial theme that was collapsed into the *Pressure to Succeed* theme because they were so similar. Thus, I ensured that each theme was supported by quality evidence, distinct from other themes, and a good representation of the data set. Reviewing and refining themes was key to ensuring that the data within each theme came together meaningfully while being distinct from other themes (Braun & Clarke, 2006).

The fifth phase, defining and naming themes is where I further refined themes and defined them to identify the essence of what each theme was about (Braun & Clarke, 2006). In this step, I defined what each theme was and what it was not to have a clear understanding of what 'story' each theme was going to tell for my analysis. During this step I also started finalizing the names of each theme. The goal was to have concise, representative names that immediately gave the reader an idea of what the theme was about (Braun & Clarke, 2006).

The sixth and final step was to produce a report of the finalized themes. The goal was to provide a concise, coherent, logical, and non-repetitive account of the story the data told (Braun & Clarke, 2006). Frequencies and vivid examples in the form of quotes were gathered for each theme. Three aspects were considered when selecting good, authentic quotes: the quote was illustrative of the point the primary researcher was making, it was reasonably succinct, and it represented the patterns in data (Lingard, 2019). The write-up of the thematic analysis is found in chapter 4 and connections are made with existing literature in chapter 5. To check the quality of this thematic analysis and maintain rigour, Braun and Clarke's (2006) 15-point checklist of criteria for good thematic analysis was referenced (see Appendix K).

Positionality Statement

Articulating your positionality is integral to the qualitative process, as it is rare for research in the social or educational field to be value-free (Carr, 200). I am a 23-year-old, South Asian first-generation student, and second-generation immigrant. My parents are proud immigrants from India who devoted their lives to ensure I have opportunities they longed for. I hold a Bachelor of Health Sciences and currently am a Master of Education student. As a student who has experienced family achievement guilt and has the privilege to access the resources to conduct this research, I am cautious to not make assumptions based on my own lived experience. I practiced value bracketing and took a reflexive approach to my work where I was sensitive to my cultural, political, and social context as they influence the research process (Greenbank, 2003). I acknowledge that my positionality influenced the selection of the research topic, how the research was conducted, and the results (Holmes, 2020).

CHAPTER 4: RESULTS

In this chapter, the findings associated with each research question are reported. The results of independent samples *t*-tests, Pearson correlations, and hierarchical multiple regressions are presented. The reflective thematic analysis results are also provided to supplement and complement the quantitative findings. The following research questions were addressed:

1. Is there a significant difference in the level of family achievement guilt between first-generation students and continuing-generation students?
2. Are there any significant differences in the level of family achievement guilt between different ethnic groups?
3. What is the relationship between family achievement guilt and maladaptive/adaptive outcomes?
    c. What is the relationship between family achievement guilt and negative emotional symptoms (maladaptive)?
    d. What is the relationship between family achievement guilt and depressive symptoms (maladaptive)?
    c. What is the relationship between family achievement guilt and anxiety symptoms (maladaptive)?
    d. What is the relationship between family achievement guilt and stress symptoms (maladaptive)?
    e. What is the relationship between family achievement guilt and empathic concern (adaptive)?
4. What is the relationship between family achievement guilt and cultural congruence?

Data Cleaning and Removal of Participants

In total, 314 students were recruited via the University of Lethbridge SONA system. Participants were deleted if they failed an attention check question (*n* = 30) and if less than 80% of the questionnaire was completed (*n* = 11). The SONA platform allowed for students to still be assigned bonus credits without full completion of the study to ensure students could withdraw at any point without consequences. Social media as a recruitment tool yielded 1329 participants. Of these participants, 705 were removed for failing the attention check questions, 44 were removed because less than 80% of the questionnaire was completed, and one participant was removed as they attended school in a different country. The final sample consisted of 273 participants (32%) via SONA system recruitment and 579 participants (68%) via social media recruitment.

Sample Description

Table 1 contains a description of sociodemographic and other characteristics of the full sample, first-generation students, and continuing-generation students. The total sample size was 852 university students (M_{age} = 21.8 years, *SD* = 4.8). First-generation students made up 41.9% of the sample (*n* = 357; M_{age} = 22.6 years, *SD* = 3.3) and continuing generation students made up 56.9% of the sample (*n* = 485; M_{age} = 21.2 years, *SD* = 4.1). The average GPA for the full sample (*M* = 3.3, *SD* = 0.6), did not significantly differ from that of first-generation students, and continuing generation students. Specifically, there was not a significant difference in GPA scores between first-generation students (*M* = 3.3, *SD* = 0.6) and continuing-generation students (*M* = 3.4, *SD* = 0.5), *t*(823) = 1.14, *p* = .255).

Most students were female (74.1%), White (63.5%), non-immigrants (84.7%), living off-campus (82.6%), and living with their parents (63.8%). The majority of students attended the University of Lethbridge (58.7%) and were motivated by personal interest (e.g., enjoyment and satisfaction) to attend post-secondary (81.1%). The sample mostly consisted of students studying psychology (27.3%) and students studying science (24.6%). Most students were in their first (29.7%), second (19.4%), or third (18.2%) year of their undergraduate degree. Students tended to have one (42.6%) or two (25.2%) siblings. In terms of employment, most students were unemployed (46.9%) or worked part-time (45.1%). Students tended to have an annual family household income greater than $80,000 (44.3%). Similarly, continuing-generation students had an annual family household income greater than $80,000 (52.7%). In contrast, first-generation students tended to have an annual family household income less than $80,000 (54.4%). A chi-square test of independence showed that there was a significant relationship between generation status and income, X^2 (1, N = 733) = 37.61, $p < .001$. First-generation students were more likely to have an annual family household income less than $80,000 compared to continuing-generation students.

Table 1

Participant Characteristics

Variable	First-generation students [a]		Continuing-generation students [b]		Full sample [c]	
	n	%	*n*	%	*n*	%
Gender						
Female	270	75.6	353	72.8	631	74.1
Male	65	18.2	109	22.5	175	20.5
Non-binary	13	3.6	19	3.9	32	3.8
Transgender	7	2.0	0	0.0	7	0.8
Other	0	0.0	2	0.4	2	0.2
Prefer not to say	2	0.6	2	0.4	5	0.6
Ethnicity						
Arab	3	0.8	14	2.9	17	2.0
Black	11	3.1	22	4.5	34	4.0
Caribbean	0	0.0	2	0.4	2	0.2
Chinese	8	2.2	27	5.6	38	4.5
Filipino	10	2.8	21	4.3	33	3.9
Indigenous	16	4.5	10	2.1	26	3.1

Japanese	2	0.6	4	0.8	6	0.7
Korean	0	0.0	6	1.2	6	0.7
Latin American	9	2.5	3	0.6	12	1.4
South Asian	18	5.0	57	11.8	76	8.9
Southeast Asian	11	3.1	2	0.4	14	1.6
White	252	70.6	288	59.4	541	63.5
West Asian	5	1.4	6	1.2	11	1.3
Other	11	3.1	22	4.5	34	4.0

Variable	First-generation students [a]		Continuing-generation students [b]		Full sample [c]	
	n	%	*n*	%	*n*	%
Income						
< $19,999	59	16.5	42	8.7	104	12.2
$20,000 - $39,999	57	16.0	43	8.9	100	11.7
$40,000 - $59,999	42	11.8	44	9.1	87	10.2
$60,000 - $79,999	36	10.1	34	7.0	71	8.3
$80,000 - $99,999	39	10.9	50	10.3	89	10.4
$100,000 - $149,999	47	13.2	104	21.4	152	17.8
$150,000 and over	34	9.5	102	21.0	137	16.1
Prefer not to say	42	11.8	65	13.4	110	12.9
Immigrant Status						
Yes	41	11.5	78	16.1	122	14.3
No	315	88.2	401	82.7	722	84.7
Prefer not to say	1	0.3	6	1.2	8	0.9
Employment Status						
Unemployed	156	43.7	241	44.1	400	46.9
Full-time	32	9.0	21	4.3	53	6.2
Part-time	164	45.9	214	49.7	384	45.1
Prefer not to say	5	1.4	8	1.6	14	1.6
Living Arrangement						
Off-campus	301	84.3	394	81.2	704	82.6
On-campus	56	15.7	88	18.2	145	17.0
Prefer not to say	0	0.0	2	0.4	2	0.2
Living with Parents						
Yes	230	64.4	310	63.9	544	63.8
No	106	29.7	160	33.0	272	31.9
Other	19	5.3	10	2.1	29	3.4
Prefer not to say	2	0.6	5	1.0	7	0.8

Number of Siblings						
0	34	9.5	32	6.6	67	7.9
1	141	39.5	218	44.9	363	42.6
2	89	24.9	124	25.6	215	25.2
3	44	12.3	74	15.3	118	13.8
4	26	7.3	15	3.1	44	5.2
5 or more	23	6.4	22	4.5	45	5.3

Variable	First-generation students [a]		Continuing-generation students [b]		Full sample [c]	
	n	%	*n*	%	*n*	%
Area of Study						
Psychology	113	31.7	117	24.1	233	27.3
Education	20	5.6	27	5.6	47	5.5
Health Sciences	16	4.5	38	7.8	54	6.3
Business	15	4.2	23	4.7	39	4.6
Nursing	14	3.9	14	2.9	28	3.3
Science	75	21.0	133	27.4	210	24.6
Engineering	9	2.5	18	3.7	27	3.2
Kinesiology	21	5.9	24	4.9	47	5.5
Social work	1	0.3	5	1.0	7	0.8
Mathematics	4	1.1	5	1.0	9	1.1
Arts	32	9.0	39	8.0	71	8.3
Fine Arts	10	2.8	15	3.1	25	2.9
Other	27	7.6	27	5.6	55	6.5
Name of University						
Lethbridge	226	63.3	268	55.3	500	58.7
Calgary	19	5.3	68	14.0	87	10.2
Alberta	22	6.2	29	6.0	52	6.1
Manitoba	8	2.2	18	3.7	27	3.2
British Columbia	13	3.6	8	1.6	22	2.6
Mount Royal	11	3.1	8	1.6	19	2.2
Carleton	3	0.8	12	2.5	15	1.8
Other	55	15.5	74	15.3	130	15.2

Note. Participants were on average 21.8 years old (*SD* = 4.8) and had an average grade point average of 3.3 (*SD* = 0.6).

[a] *n* = 357. [b] *n* = 485. [c] *n* = 852.

t-test: Mean Differences between First-Generation and Continuing-Generation Students

Table 2 contains the results from the independent samples *t*-test conducted to address research question one of whether there is a significant difference in mean family achievement guilt scores between first-generation students and continuing-generation students. First-generation students had significantly higher family achievement guilt scores (M = 119.58, SD = 33.29) than continuing-generation students (M = 104.82, SD = 31.59), $t(840) = 6.55$, $p < .001$, 95% CI [10.24, 19.19]. The effect size was small, with a Cohen's *d* of 0.46.

Table 2

t-test Comparing First and Continuing Generation Students' Family Achievement Guilt Scores

	First-generation students ^{a}		Continuing-generation students ^{b}		*t*(840)	*p*	95% CI		Cohen's *d*
	M	*SD*	*M*	*SD*			*LL*	*UL*	
Family achievement guilt	119.58	33.29	104.82	31.59	6.55	< .001	10.34	19.19	.46

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

^{a} n = 357. ^{b} n = 485.

t-test: Mean Differences between White and Racialized Students

Table 3 contains the results from the independent samples *t*-test conducted to address question two of whether this is a significant difference in mean family achievement guilt scores between White students and racialized students. Family achievement guilt scores were significantly higher for racialized students (M = 118.13, SD = 34.73) compared to White students (M = 107.24, SD = 31.43), $t(850) = 4.69$, $p < .001$, 95% CI [6.33, 15.46]. The effect size was small, with a Cohen's *d* of 0.33.

Table 3

t-test Comparing White and Racialized Students' Family Achievement Guilt Scores

	White students [a]		Racialized students [b]		$t(850)$	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
Family achievement guilt	107.24	31.43	118.13	34.73	4.69	< .001	6.33	15.46	.33

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

[a] $n = 541$. [b] $n = 311$.

The Relationship Between Family Achievement Guilt and Maladaptive Outcomes

Pearson Correlations

Aligning with the third research question, Table 4 contains the results of Pearson correlations conducted to assess the relationship between family achievement guilt and maladaptive outcomes. Family achievement guilt and negative emotional symptoms were moderately positively correlated, $r(850) = .50$, $p < .001$. There was a moderate positive relationship between family achievement guilt and stress symptoms, $r(850) = .48$, $p < .001$. Family achievement guilt and anxiety symptoms were moderately positively correlated, $r(850) = .47$, $p < .001$. Similarly, there was a moderate positive relationship between family achievement guilt and depressive symptoms, $r(850) = .41$, $p < .001$. Thus, family achievement guilt had a significant moderate positive correlation with all maladaptive outcomes.

Table 4 also contains the results of Pearson correlations conducted to assess the relationship between the different facets of family achievement guilt and maladaptive outcomes. The *leaving family behind* facet had a weak positive correlation with negative emotional symptoms ($r(850) = .38$, $p < .001$), stress symptoms ($r(850) = .38$, $p < .001$), anxiety symptoms ($r(850) = .36$, $p < .001$), and depression symptoms ($r(850) = .27$, $p < .001$). The facet of *having* *more privileges* was weakly positively correlated with negative emotional symptoms ($r(850) = .33$, $p < .001$), stress symptoms ($r(850) = .33$, $p < .001$), anxiety symptoms ($r(850) = .30$, $p < .001$), and depression symptoms ($r(850) = .26$, $p < .001$). The *becoming different* facet had a moderate positive correlation with negative emotional symptoms ($r(850) = .46$, $p < .001$), stress symptoms ($r(850) = .42$, $p < .001$), anxiety symptoms ($r(850) = .43$, $p < .001$), and depression symptoms ($r(850) = .40$ $p < .001$). The *experiencing financial distress or other pressures* facet was moderately positively correlated with negative emotional symptoms ($r(850) = .50$, $p < .001$), stress symptoms ($r(850) = .41$, $p < .001$), anxiety symptoms ($r(850) = .43$, $p < .001$), and depression symptoms ($r(850) = .50$, $p < .001$). *Leaving family behind* and *having more privileges* facets had weak positive correlations with each maladaptive outcome. Whereas the other facets of *becoming different* and *experiencing financial distress or other pressures* were moderately positively correlated with each maladaptive outcome.

Table 4

Pearson Correlations for Family Achievement Guilt and Maladaptive Outcomes

Variable	*M*	*SD*	1	2	3	4	5
1. Family achievement guilt	111.21	33.07	—				
2. Leaving family behind	45.72	15.97	—				
3. Having more privileges	22.09	10.82	—				
4. Becoming different	21.62	8.89	—				
5. Experiencing financial distress or other pressures	21.78	5.90	—				
6. Negative emotional symptoms	54.13	29.68	.50***	.38***	.33***	.46***	.50***
7. Stress symptoms	20.85	10.45	.48***	.38***	.33***	.42***	.41***
8. Anxiety symptoms	15.50	11.10	.47***	.36***	.30***	.43***	.43***
9. Depression symptoms	17.78	11.71	.41***	.27***	.26***	.40***	.50***

*** $p < .001$.

Hierarchical Multiple Regression: Predicting Negative Emotional Symptoms

Hierarchical multiple regression analysis was performed to investigate the ability of family achievement guilt to predicts levels of negative emotional symptoms, after controlling for age, gender, ethnicity, income, and first-generation status (see Table 5). A hierarchical design was employed which used three models: 1) model 1 predicted negative emotional symptoms from age, gender, ethnicity, and income, 2) model 2 added first-generation status, and 3) model 3 added family achievement guilt. The results of the hierarchical multiple regression are presented in Table 5. The introduction of family achievement guilt explained an additional 21% of variance in negative emotional symptoms, after controlling for sociodemographic variables and first-generation status (R^2 Change = .21; $F(6,779) = 53.68$, $p < .001$). In the final adjusted model, family achievement guilt was a statistically significant predictor of negative emotional symptoms (B = 0.44 β = 0.50, *t* = 15.31, *p* < .001).

Table 5

Hierarchical Multiple Regression Analysis of Predictors of Negative Emotional Symptoms

Predictors		Changes in R^2	B	SE	Standardized β	*t* value
Step 1		.08***				
	Age		-0.96	0.21	-0.15	-4.35***
	Gender [a]		-14.48	2.44	-0.21	-5.92***
	Ethnicity [b]		2.25	2.09	0.04	1.08
	Income		-1.12	0.43	-0.09	-2.57**
Step 2						
	First-generation status [c]	.00	1.89	2.10	0.03	0.90
Step 3						
	Family achievement guilt	.21***	0.44	0.03	0.50	15.31***

Note. $F(6,779) = 53.68$, $p < .001$, $R^2 = .29$, adj $R^2 = .29$

[a] Male = 1. [b] Racialized student = 1. [c] First-generation student = 1.

** *p* < .01. *** *p* < .001.

Hierarchical Multiple Regression: Predicting Stress Symptoms

The same hierarchical design was used to investigate family achievement guilt as a predictor of stress symptoms (see Table 6). After controlling for age, gender, ethnicity, income, and first-generation status, family achievement guilt explained an additional 20% of the variation in stress symptoms (R^2 Change = .20; $F(6,779) = 48.70$, $p < .001$). Family achievement guilt was a statistically significant predictor of stress symptoms in the final model (B = 0.15, β = 0.48, *t* = 14.64, *p* <.001).

Table 6

Hierarchical Multiple Regression Analysis of Predictors of Stress Symptoms

Predictors		Changes in R^2	B	SE	Standardized β	*t* value
Step 1		.07***				
	Age		-0.13	0.08	-0.06	-1.66
	Gender [a]		-6.26	0.87	-0.25	-7.22***
	Ethnicity [b]		-0.01	0.74	0.00	-0.02
	Income		-0.24	0.16	-0.05	-1.52
Step 2						
	First-generation status [c]	.00	0.25	0.75	0.01	0.34
Step 3						
	Family achievement guilt	.20***	0.15	0.01	0.48	14.64***

Note. $F(6,779) = 48.70$, $p < .001$, $R^2 = .27$, adj $R^2 = .27$

[a] Male = 1. [b] Racialized student = 1. [c] First-generation student = 1.

*** $p < .001$.

Hierarchical Multiple Regression: Predicting Anxiety Symptoms

Table 7 contains the results of the hierarchical multiple regression conducted to assess family achievement guilt as a predictor of anxiety symptoms, after controlling for age, gender, ethnicity, income, and first-generation status. The introduction of family achievement guilt explained an additional 17% of variance in anxiety symptoms, after controlling for sociodemographic variables and first-generation status (R^2 Change = .17; $F(6,779) = 43.70$, $p < .001$). In the final model, family achievement guilt was significantly associated with anxiety symptoms (B = 0.15, β = 0.45, $t = 13.41$, $p < .001$).

Table 7

Hierarchical Multiple Regression Analysis of Predictors of Anxiety Symptoms

Predictors		Changes in R^2	B	SE	Standardized β	*t* value
Step 1		.08***				
	Age		-0.42	0.08	-0.18	-5.05***
	Gender [a]		-4.84	0.92	-0.18	-5.28***
	Ethnicity [b]		0.94	0.79	0.04	1.20
	Income		-0.37	0.16	-0.08	-2.25**
Step 2						
	First-generation status [c]	.00	1.03	0.79	0.05	1.30
Step 3						
	Family achievement guilt	.17***	0.15	0.01	0.45	13.41***

Note. $F(6,779) = 43.70$, $p < .001$, $R^2 = .25$, adj $R^2 = .25$

[a] Male = 1. [b] Racialized student = 1. [c] First-generation student = 1.

**$p < .05$. *** $p < .001$.

Hierarchical Multiple Regression: Predicting Depression Symptoms

Hierarchical multiple regression was performed to investigate that ability of family achievement guilt to predict depression symptoms, using the same hierarchical design as the other maladaptive outcomes (see Table 8). After controlling for age, gender, ethnicity, income, and first-generation status, family achievement guilt explained an additional 14% of the variation in depression symptoms (R^2 Change = .14; $F(6,779) = 31.29$, $p < .001$). Family achievement guilt was a significant predictor variable of depression symptoms in the final model (B = 0.14, β = 0.40, $t = 11.53$, $p < .001$).

Table 8

Hierarchical Multiple Regression Analysis of Predictors of Depression Symptoms

Predictors		Changes in R^2	B	SE	Standardized β	*t* value
Step 1		.06***				
	Age		-0.41	0.09	-0.17	-4.64***
	Gender [a]		-3.38	0.98	-0.12	-3.44***
	Ethnicity [b]		1.33	0.84	0.06	1.58
	Income		-0.52	0.18	-0.10	-2.94**
Step 2						
	First-generation status [c]	.00	0.62	0.85	0.03	0.74
Step 3						
	Family achievement guilt	.14***	0.14	0.01	0.40	11.53***

Note. $F(6, 779) = 31.29$, $p < .001$, $R^2 = .19$, adj $R^2 = .19$

[a] Male = 1. [b] Racialized student = 1. [c] First-generation student = 1.

** $p < .01$. *** $p < .001$.

The Relationship Between Family Achievement Guilt and Empathic Concern

Pearson Correlations

Table 9 provides the Pearson correlation results calculated to assess the relationship between family achievement guilt and empathic concern, an adaptive outcome. Family achievement guilt and empathic concern were weakly positively correlated, $r(848) = .22$, $p < .001$. Pearson correlation coefficients for the relationship between each facet of family achievement guilt and empathic concern are also reported in Table 9. Empathic concern had a weak positive correlation with *leaving family behind (*$r(848) = .24$, $p < .001$), *having more privileges* ($r(850) = .18$, $p < .001$), and *experiencing financial distress or other pressures* ($r(848)$

= .15, $p < .001$). There was a non-significant correlation of .07 between *becoming different* and empathic concern ($p < .061$).

Table 9

Pearson Correlations for Family Achievement Guilt and Empathic Concern

Variable	*M*	*SD*	Family achievement guilt	Leaving family behind	Having more privileges	Becoming different	Experiencing financial distress or other pressures
Empathic concern	27.06	4.84	.22***	.24***	.18***	.07	.15***

*** p < .001

Hierarchical Multiple Regression: Predicting Empathic Concern

Hierarchical multiple regression was conducted to explore the ability of family achievement guilt to predict empathic concern, after controlling for age, gender, ethnicity, income, and first-generation status (see Table 10). The introduction of family achievement guilt explained an additional 4% of variance in empathic concern, after controlling for sociodemographic variables and first-generation status (R^2 Change = .04; $F(6,777) = 16.54$ $p < .001$). In the final adjusted model, family achievement guilt was a statistically significant predictor of empathic concern (B = 0.03, $\beta = 0.21$, $t = 5.73$, $p < .001$).

Table 10

Hierarchical Multiple Regression Analysis of Predictors of Empathic Concern

Predictors		Changes in R^2	B	SE	Standardized β	*t* value
Step 1		.08***				
	Age		0.10	0.04	0.10	2.82**
	Gender [a]		-3.05	0.40	-0.27	-7.60***
	Ethnicity [b]		0.26	0.34	0.03	0.75
	Income		-0.07	0.07	-0.03	-0.94
Step 2						
	First-generation status [c]	.00	-0.06	0.34	-0.01	-0.18
Step 3						
	Family achievement guilt	.04***	0.03	0.01	0.21	5.73***

Note. $F(6,777) = 16.54$, $p < .001$, $R^2 = .11$, adj $R^2 = .11$

[a] Male = 1. [b] Racialized student = 1. [c] First-generation student = 1.

** $p < .01$. *** $p < .001$.

The Relationship Between Family Achievement Guilt and Cultural Congruence

Table 11 contains Pearson correlation coefficients to address research question four and determine the relationship between family achievement guilt and cultural congruence. Family achievement guilt and cultural congruence were moderately negatively correlated, $r(849) = -.45$, $p < .001$. Pearson correlation coefficients were also computed to assess the relationship between each family achievement guilt facet and cultural congruence (see Table 11). Cultural congruence had a weak negative correlation with *leaving family behind (*$r(849) = -.30$, $p < .001$)*, having more privileges* ($r(849) = -.35$, $p < .001$), and *experiencing financial distress or other pressures* (*r*(849) = -.35, *p* < .001). There was a moderate negative correlation between cultural congruence and becoming different, *r*(840) = -.50, *p* < .001).

Table 11

Pearson Correlations for Family Achievement Guilt and Cultural Congruence

Variable	*M*	*SD*	Family achievement guilt	Leaving family behind	Having more privileges	Becoming different	Experiencing financial distress or other pressures
Cultural congruence	67.92	13.77	-.45***	-.30***	-.35***	-.50***	-.35***

*** p < .001

Thematic Analysis Results

Thematic analysis was used to analyze the responses to the short answer question. Seven themes were identified after following Braun and Clarke's (2006) six phases of reflexive thematic analysis. Table 12 contains the theme frequencies and illustrative quotes to support each theme. The researcher gave students a description of family achievement guilt and asked if they had experienced this type of guilt. If the student had experienced this type of guilt, they were asked to explain their lived experience and the impact this guilt has on them. The question read as follows:

> "In university settings, sometimes students feel guilt for having succeeded/having privileges when close others, such as parents or siblings, have failed to succeed or lack similar privileges. They may ask themselves, "Why should I succeed or have privileges when my family has failed to do so?" Have you ever experienced this type of guilt in the university setting? If you have experienced this type of guilt, please describe your experience. Also, how has it affected you and your life as a student? If you have not experienced this type of guilt, please describe why this does not apply to you."

Fifty students left the question blank, 501 students indicated that they had not experienced this type of guilt, and 301 students shared their experience with this type of guilt.

Table 12

Frequencies and Quotes for Themes of Students' Experiences with Family Achievement Guilt

Theme (Frequency)	Example Quotes
Gratitude and awareness of privileges (165)	"I feel extremely grateful for the opportunities I have because of my parents' sacrifices." "I am grateful for all opportunities and privileges at hand, which my parents did not have growing up." "I am really grateful for their sacrifices." "It makes me feel grateful each day for being able to be a student."
Pressure to succeed (114)	"It has put an unimaginable amount of pressure and stress on me to excel in all fields." "It has led to immense pressure to succeed and graduate university." "I feel extra pressure to be a good student, get good grades, study, and make the most of the opportunities I have, that my mother didn't." "This guilt has affected me as a student by making me feel more pressured. I feel like since I'm the first one in family to go to University I have to do really well and make them proud because they didn't get the opportunity."
Mental health struggles (107)	"It puts a strain on my mental health "It manifests in burnouts, anxiety attacks and even depression." "This guilt has made me feel depressed and distracted." "The guilt has affected my ability to attend class, my social life, my self-esteem, and I have even considered suicide to escape this"

Motivation (67)	“It’s definitely motivated me to do really well academically.” “I’d say it’s made me more motivated to work harder. Create the life I want.” “This guilt has become an inspiration and motivation to do well in my studies.” “It has made me try harder and take advantage of every opportunity that comes my way, so I can get the most out of my university experience.”
Growing Apart (53)	“I keep academic achievements to myself.” “I am usually afraid that if I succeed, or pursue my interests further, it will further separate me from my family” “I feel like I can’t be emotionally vulnerable around my family as frequently anymore.” “I find that this guilt makes me not want to be around my family due to the discomfort I feel when university is in the conversation. I feel like I am growing and changing while they all stay the same.”
Guilt inhibits new glimmers of enjoyment and opportunity (35)	“It would impact my ability to enjoy going out or doing fun activities.” “Most of the time, I do not enjoy opportunities to the full extend.” “I feel guilty and don’t indulge myself in some things or activities.” “It makes me not want to prioritize going to the gym sometimes or not avail all opportunities.”
Battle with authenticity (22)	“As much as I am succeeding in university, my heart's just not in it. I'm only doing this for them, my passion lies elsewhere.” “I feel like I’m not working for myself anymore, I’m working for my family, to satisfy them” “The idea of med school itself makes me panicky. I’m scared I’ll end up hating my life but I’m still going to do it for my parents.” “It's hard for me to separate who I am and the persona my parents want me to take”

Note. The themes are not mutually exclusive. The frequencies represent the number of participants that mentioned the theme. Most participants were counted towards the frequencies of several themes.

The most prominent theme was *Gratitude and Awareness of Privileges*. This theme captured the numerous remarks that demonstrated students' awareness of how they have more privileges due to the sacrifices their parents made. Specifically, students described the hardships, sacrifices, and investments their parents made that allowed them to have their current opportunities. In alignment with step two of Braun and Clarke's (2006) process hardships, sacrifices, and investments were some of the initial codes generated for this theme. Evidently, students were not only aware but grateful for their privileges and their parents' sacrifices. Many students expressed feeling "grateful for the opportunities [they] have because of [their] parents sacrifices". During step four (reviewing themes) and five (defining and naming the themes) Gratitude of Privileges and Awareness of Parent's Sacrifices were combined to create this final theme as the initial themes were not distinct enough to be separated.

Pressure to Succeed was the second most frequent theme. This theme entailed students' experiences of striving to make their parents proud, perceiving success as the only option, struggling to cope with failure, and having high expectations for themselves. Moreover, under this theme, many students viewed themselves as their parents' investment and were committed to ensuring it was worthwhile. When asked how family achievement guilt has impacted them, most students communicated that this guilt "put[s] an unimaginable amount of pressure and stress on [them] to excel in all fields". The following are some of the initial codes this theme compromised of: (1) viewing oneself as an investment, (2) desire to give back to parents, (3) perfectionism tendencies, (4) failure not being an option. Due to the similarity between the two themes, Viewing Oneself as an Investment and Perfectionism were initial themes that were collapsed into the Pressure to Succeed theme.

Another prevalent theme was *Mental Health Struggles*. Several students shared that this family achievement guilt “puts a strain on [their] mental health”. For example, these individuals reported experiencing guilt, “burnout”, “anxiety attacks”, “constant stress”, low self-esteem, and feelings of depression such as sadness and worthlessness. Two students shared that their lived experience with family achievement guilt led them to self-harm. One student classified themselves has having “a severe level” of family achievement guilt and shared how their experience with family achievement guilt included suicidal ideation: “the guilt has affected my ability to attend class, my social life, my self-esteem, and I have even considered suicide to escape this at sometimes”. It is important to note that all students were given a list and details on how to access available supports and counselling services. Negative emotions (e.g., worthlessness and stress), mention of various mental health disorders (e.g., anxiety and depression), and low self-esteem made up the initial codes for this theme. This theme was apparent early on and did not require many revisions. Overall, it was evident that students’ mental health was being negatively impacted by their lived experience with family achievement guilt.

The theme with the fourth highest frequency was *Motivation*. Motivation was an initial code that directly got promoted to a theme in step four of the reflective thematic analysis process. Distinct from pressure, students described a “want” rather than a “need” to succeed. Family achievement guilt was referred to as a motivating factor for some students. Students shared that this guilt encouraged them to do “really well academically” and “take advantage of every opportunity”, such as attending class and going to the gym. Thus, the guilt translated into “inspiration and motivation to do well” for some students.

The next prominent theme was *Growing Apart*. This theme had two main factors. First, many students reported that they kept their achievements to themselves and avoided the topic of university in conversations with their parents, as they felt that their university experience would not be understood due to their parents never attending post-secondary. Second, students shared that discussing their hardships with their parents was not an option, as they viewed their problems as less significant in comparison to their parents' sacrifices and did not want to come off as ungrateful. The theme of Growing Apart encompasses how some students' experience with family achievement guilt has created distance between them and their parents, as students hesitate to share experiences. Specifically, students shared that they "can't be emotionally vulnerable around [their] family as frequently anymore" regarding their experiences as they are "growing and changing while [their parents and siblings] all stay the same". Avoidance of university topics in conversations, keeping success to oneself, hiding failures, worries about being misunderstood, and intentional isolation from family were all codes that lead to the creation of this theme. Defining and naming the themes, step five of Braun and Clarke's (2006) process resulted in numerous iterations of the name for this theme. Growing Apart was selected as it was the most representative and concise name.

The sixth most frequent theme created to explain the data was *Guilt Inhibits New Glimmers of Enjoyment and Opportunity*. Some students shared that family achievement guilt prevented them from enjoying activities such as going to the gym, having dinner with friends, going out, and attending school events. Furthermore, students not only failed to enjoy these experiences but actively "shut [themselves] out from people and new experiences". When outlining the impact of family achievement guilt, several students stated that this guilt "limits [their] interest and activity in social interactions" and prevents them from "avail[ing] all opportunities”. A few described their limited enjoyment and engagement as a form of self-sabotage because they felt non-deserving of the opportunities presented to them, such as accessing campus counselling services, spending time with friends, attending school events, eating out, etc. Aligning with step two of Braun and Clarke’s (2006) six phase process this theme resulted from initial codes that appreciated the inconsistencies within the data set. Inconsistent with the Motivation theme, disengagement, lack of enjoyment, non-deserving, and missing out on events were some codes that led to the generation of this theme.

The final theme developed to explain the data was *Battle with Authenticity*. This theme was the least frequent. Students remarked that they are “not working for [themselves]” but rather “working for [their] family”. This meant that they were not living a life that was aligning with their personal values. Even if their “passion [was] elsewhere” several students were “still going to do [university] for [their] parents”. Battling with authenticity, many students shared that they were pursuing “careers that satisfy [their] parents”. This theme captures several students discloses about how they were living to become the person that they think their parents want them to be rather than embracing their own passions, values, or desires. For example, one participant shared that they were continuing down a path for the sake of their parents, even though it felt unauthentic: “The idea of med school itself makes me panicky. I’m scared I’ll end up hating my life but I’m still going to do it for my parents”. It was evident that many students were struggling with the tension between living an authentic life and doing what their parents want. Doing university for parents, living out their parents’ dreams, feelings of inauthenticity, lack of interest and passion in area of study were some of the initial codes that contributed to the creation of this theme.

Braun and Clarke’s (2006) six phase process for reflexive thematic analysis was used to analyze the qualitative data from the short answer question. The following seven themes were created to explain students’ experience with family achievement guilt and the impact family achievement guilt has had on them: (1) gratitude and awareness of privileges, (2) pressure to succeed, (3) mental health struggles, (4) motivation, (5) growing apart, (6) guilt inhibits new glimmers of enjoyment and opportunity, and (7) battle with authenticity. See Table 12 for the frequencies and example quotes for each theme. A thematic map of the seven themes was also created to illustrate the development of the themes and the inter-relationships between them (see Appendix L).

CHAPTER 5: DISCUSSION

The purpose of this study was to investigate the concept of family achievement guilt amongst Canadian university students. There were four specific aims of this study: (1) to determine if the prevalence of family achievement guilt differs between first-generation and continuing-generation students; (2) to determine if the level of family achievement guilt differs between various ethnic groups; (3) to explore the nature of family achievement guilt (maladaptive vs adaptive); and (4) to examine the relationship between family achievement guilt and cultural congruence. This study was timely and necessary as, to my knowledge, there is no peer-reviewed Canadian literature on the topic of family achievement guilt. This section presents the interpretation and synthesis of the major findings from this study, strengths and limitations, and future directions.

Interpretation and Synthesis of Results

The major findings for each research question were interpreted and synthesized with previous literature. The seven themes developed from the thematic analysis were also interpreted and compared to the existing scholarship.

Research Question One: Is There a Significant Difference in the Level of Family Achievement Guilt Between First-Generation Students and Continuing-Generation Students?

Independent samples *t*-test revealed that there was a significant difference in mean family achievement guilt scores between first-generation students and continuing-generation students. Consistent with the findings from previous studies (Covarrubias & Fryberg, 2015; Covarrubias et al., 2020), first-generation students had significantly higher family achievement guilt scores compared to continuing-generation students. Thus, this finding was not surprising. To make sense of this finding, three possible explanations are outlined below.

First, research that has examined the importance of family can help explain this finding. Specifically, previous studies that found first-generation students to be more likely to prioritize familial relationships, compared to continuing-generation students, provide a rationalization for my finding (Markus et al., 2004; Ramirez et al., 2004; Stephens et al., 2012). Specifically, first-generation students holding the core value of family and spending more time with their family may be the reason this student group has higher levels of family achievement guilt, as they would be more likely to make guilt-provoking comparisons to family members (Argyle, 1992: Markus et al., 2004). Further, first-generation students who cherish family closeness and have an interdependent family culture may view their academic achievement as a threat to their familial relationships because it is perceived as a selfish endeavour that clashes with their interdependent norms (Shim et al., 2010; Stephens et al., 2012). Likewise, continuing-generation students may have lower levels of family achievement guilt because their family norms draw from an independent culture where the student is encouraged to pursue individual achievements (Ramirez et al., 2004; Stephens et al., 2012). In sum, the clash between university institutions' individualistic orientation (Stephens & Townsend, 2015) and first-generation students coming from collectivist cultures, where family is an important value likely contributes to the higher levels of family achievement guilt among this student group. An important aspect to note of this positioning is that it is difficult to disentangle first-generation status from racialization, as first-generation students are predominately from ethnic minority groups. Thus, this argument can also be used to explain my finding of racialized students having higher levels of family achievement guilt compared to White students.

The second probable explanation for this outcome is that students, who are the first to attend university, perceive a greater discrepancy between their opportunities and their parents' opportunities versus students, who have parents that have attended post-secondary (Moreno, 2021). Specifically, as a first-generation student, you get to attend school, a privilege that was not offered to your parents, whereas continuing-generation students get the same opportunity as their parents but under different conditions (Spiegler & Bednarek, 2013; Stebleton et al., 2014). Thus, first-generation students may have higher levels of family achievement guilt because they get to experience something that their parents never did. On the other hand, continuing-generation students may feel no guilt because privilege is often invisible to those who have it, or they may feel some guilt for having more accessible or different opportunities. Either way, their level of guilt may not be as high as first-generation students because the inequities between them and their parents are smaller (Peralta & Klonowski, 2017). For example, continuing-generation students may feel guilty for having more scholarship opportunities, greater variety in courses, more campus resources, and easier commutes to school compared to their parents. However, first-generation students would feel guilty about the same things but rather than feeling like they have it easier, they might question why they get to be the first to experience these opportunities, leading to a higher level of guilt (Covarrubias et al., 2021; Moreno, 2021). Engaging in an opportunity that your parents never had (e.g., attending university), rather than taking part in different opportunities than your parents, might present itself as a bigger "transgression" to feel guilty about and potentially explain why first-generation students have higher family achievement guilt levels (Moreno, 2021; Spiegler & Bednarek, 2013; Stebleton et al., 2014; Tangney et al., 2007; Tangney & Dearing, 2003). Being the first to attend university may not only give you more to be guilty about but it might also lead to imposter syndrome. This concept will be expanded on below and explored as the third potential rationale for the higher levels of family achievement guilt among first-generation students.

Third, imposter syndrome among first-generation students might be a mechanism that justifies their higher levels of family achievement guilt. *Imposter syndrome* is a psychological experience of perceived intellectual and professional fraudulence, despite evidence that you are skilled and successful (Mak et al., 2019). This term was first coined by clinical psychologists Pauline Clance and Suzanne Imes in 1978 (Clance & Imes, 1978). This experience is most prevalent in under-represented groups, including first-generation students (Le, 2019; Parkman, 2016; Paulliam & Gonzalez, 2018). Furthermore, people with imposter syndrome tend to experience feelings of guilt, as they perceive that their success was obtained in unethical or dishonest ways (Mak et al., 2019; Parkman, 2016). Drawing on this connection, the prevalence of imposter syndrome among first-generation students may explain my finding of family achievement guilt being higher among this student group (Le, 2019; Peteet et al., 2015). In other words, feeling like a fraud might be the reason first-generation students tend to have higher levels of family achievement guilt. The role imposter syndrome plays in the prevalence of family achievement guilt among first-generation students warrants further investigation.

Importantly, my finding may partially explain the significant problem universities face when it comes to retaining first-generation students (Pratt et al., 2019). Given that I found higher levels of family achievement guilt to be disproportionately prevalent among first-generation students, this socioemotional experience may be a risk factor that makes them more prone to attrition. Thus, my finding calls for the attention of institutions and researchers to investigate the mitigation of family achievement guilt as a potential action area to better support and retain first-generation students in university settings.

Overall, my findings were consistent with previous literature (e.g., Covarrubias & Fryberg, 2015; Covarrubias et al., 2020) and were explained by drawing on existing discourse. Particularly, the importance of family, the inequity between first-generation students' educational opportunities and their parents' educational opportunities, and the high prevalence of imposter syndrome among this group, provided promising explanations for why first-generation students were found to have significantly higher family achievement guilt scores compared to continuing-generation students.

Research Question Two: Are There Any Significant Differences in the Level of Family Achievement Guilt Between Different Ethnic Groups?

The data altered the extent to which this research question could be addressed. Ideally, I wanted to explore differences between different ethnic groups. However, the small number of students in the majority of the ethnic groups, and 63.5% of the sample being represented by White participants, rendered this exploration nonviable in this study. In other words, the lack of diversity in the data and the predominately White sample limited the extent to which this research question could be addressed. An adjustment was made to determine if there was a significant difference in mean family achievement guilt scores between White students and racialized students. Racialized students consisted of Arab, Black, Caribbean, Chinese, Filipino, Indigenous, Japanese, Korean, Latin American, South Asian, Southeast Asian, West Asian, and multiethnic students. Thus, the findings for this research question fail to account for the nuances among different ethnic groups. However, the aim was to provide preliminary data, as ethnic group differences regarding family achievement guilt have never been explored.

The independent samples *t*-test revealed that there was a significant difference in mean family achievement guilt scores between White students and racialized students. My finding indicated that racialized students have higher family achievement guilt scores compared to White students. Suggesting that to combat the prevalence of family achievement guilt, interventions should be developed to target racialized students, alongside first-generation students. This finding expanded on Covarrubias and Fryberg's (2015) work that reported Latino students having higher family achievement guilt scores compared to White students. My finding was novel, given the dearth of family achievement guilt studies exploring ethnic differences and the fact that each existing study (e.g., Covarrubias & Fryberg, 2015; Covarrubias et al., 2015; Covarrubias et al., 2020; Covarrubias et al., 2021) has focused on Latino populations. However, this finding will need to be further investigated in future studies and ideally with a large enough sample to compare the levels of family achievement guilt among various ethnic groups.

There are a few ways to make sense of why racialized students were found to have higher levels of family achievement guilt compared to White students. First, like continuing-generation students, White students are less likely to prioritize familial relationships over their own needs (Ramirez et al., 2004; Stephens et al., 2012), potentially explaining their lower levels of guilt. Specifically, if prioritizing their own needs is the norm, White students may tend to not perceive attending university as a wrongdoing that they should feel guilty about (Tangney et al., 2007).

Second, levels of family achievement guilt being higher among racialized students might be because first-generation students, a population known to have higher levels of family achievement guilt, is comprised mostly of racialized students (Bui, 2002). Thus, the difference in family achievement guilt between White and racialized students may be confounded by first-generation status.

Third, ethnic minority students may be more likely to come from families impacted by poverty (Olarewaju & Olarewaju, 2021), family dysfunction (McGoldrick et al., 2005), and intergenerational trauma (Cerdeña et al., 2021). These experiences are all likely confounders that could explain why racialized students had higher levels of family achievement guilt. For example, a racialized student coming from a family impacted by poverty may feel guilty for leaving their family behind and escaping poverty by attending university.

Fourth, my findings can be understood in the context of cultural mismatch theory; racialized students may have reported higher levels of family achievement guilt because of the disconnect between their cultural norms and the institutions' independent cultural norms. This mismatch for many racialized students could lead to discomfort (Stephens & Townsend, 2015), a low sense of belonging (Stephens & Townsend, 2015), imposter syndrome (Le, 2019), and fear of becoming different from one's family (Covarrubias et al., 2021). These all are potential factors that could account for racialized students reporting higher levels of family achievement guilt compared to White students.

Fifth, cultural expectations and definitions of success may be another reason why racialized students seem to have higher levels of family achievement guilt. Cultural expectations are messages we internalize about what is acceptable and how one should behave (Giddens & Griffiths, 2006). A common one among various social groups is that completing postsecondary is a necessity (Bryan et al., 2017; Maxwell et al., 2016). However, specific cultural expectations within familial systems may be fueling the higher levels of family achievement guilt among racialized students. For example, Chinese, Filipino, and South Asian families tend to hold the belief that higher education is the only way to obtain social mobility and meet the requirement to take care of ones' family members in the future (Azores, 1986; Bhattacharya & Schoppelrey, 2004; Glick & White, 2004; Goyettee & Xie, 1999). In theory, this expectation would increase racialized students' level of *experiencing financial distress or other pressures*, one of the four family achievement guilt facets. Further, students coming from these cultures are more likely to major in “safe” areas (e.g., Health Sciences, Engineering, and Nursing) because their parents believe it will “guarantee” employment, even if it is a saturated area of study or misaligned with one’s interests (Bhattacharya & Schoppelrey, 2004; Glick & White, 2004; Maxwell et al., 2016). Likewise, the belief that becoming a doctor or engineer is the only way to be successful is not uncommon among South Asian families (Bhattacharya & Schoppelrey, 2004). These deep-rooted expectations would potentially explain the higher levels of family achievement guilt among racialized students because any deviance from this limited definition of success would be perceived as an act that one must feel guilty about. My qualitative data supported this potential explanation, as many students reported that they had familial expectations to pursue specific career paths, cater to their parents’ definitions of success, and give back to their family which contributed to their immense pressure to succeed. Additionally, these cultural expectations fail to consider whether an individual has the aptitude for post-secondary (Maxwell et al., 2016). Thus, racialized students’ may have been reporting guilt connected to feeling wrong for wanting to follow their own passions; a behaviour possibly shunned and thus guilt-provoking in their familial systems. Weaving in my qualitative findings, the *battle with authenticity* theme complements this position, as many students shared their hesitation in pursuing their own interests. However, given that cultural expectations are nuanced and different for everyone, a qualitative study exploring various cultural expectations that are contributing to the incidence and prevalence of family achievement guilt would be beneficial.

In summary, my finding of family achievement guilt being higher among racialized students compared to White students was novel but requires a more in-depth investigation with a diverse sample. Racialized students may be a group of students to focus on as family achievement guilt research unfolds in the years to come. Determining what ethnic minority groups have a higher prevalence of family achievement guilt would provide more insights into the mechanisms leading to this socioemotional experience and guide targeted recruitment in future studies.

Research Question Three: What is the Relationship Between Family Achievement Guilt and Maladaptive/Adaptive Outcomes?

Given that there was limited and contradicting research on the nature of family achievement guilt, exploring relationships with maladaptive outcomes (negative emotional symptoms, depression symptoms, anxiety symptoms, and stress symptoms) and adaptive outcomes (empathic concern) was crucial. The relationship each of these outcomes had with family achievement guilt and the accompanying four facets of guilt is synthesized below. An interpretation and potential explanations of the results for each maladaptive and adaptive variable is also provided.

The Relationship Between Family Achievement Guilt and Maladaptive Outcomes

Pearson correlations indicated that family achievement guilt had a significant positive relationship with negative emotional symptoms, depression symptoms, anxiety symptoms, and stress symptoms. These results suggested that higher family achievement guilt scores are significantly correlated with higher levels of the maladaptive variables. Existing scholarly literature does not report a positive association between family achievement guilt and anxiety, stress, and negative emotional symptoms, specifically because these variables have not been empirically assessed. Thus, to my knowledge, my study extends previous research by being the first to report a positive relationship between family achievement guilt and anxiety, stress, and negative emotional symptoms. However, the relationship between family achievement guilt and depression has been explored. These findings are consistent with existing literature that reports a positive association between family achievement guilt and depression symptoms (Covarrubias et al., 2015) and inconsistent with Covarrubias et al.’s (2020) research that found no association with depression. Further, family achievement guilt being positively associated with depression symptoms aligns with Austin et al.’s (2009) work that reported a positive association between survivor guilt and depression among African American college students. My research contributes greater clarity in terms of the association between family achievement guilt and depression, as existing evidence was extremely limited and contradictory. The positive associations found between family achievement guilt and maladaptive outcomes suggest that family achievement guilt may be an important phenomenon to address when combating the rising concern of mental health challenges among university students nationwide (Mistler et al., 2012).

To further tease out the relationship between family achievement guilt and maladaptive outcomes, multiple linear hierarchical regressions were run. The results revealed that family achievement guilt significantly predicted depression, anxiety, stress, and negative emotional symptoms, after controlling for age, gender, ethnicity, income, and first-generation status. Meaning that regardless of age, gender, ethnicity, income, and first-generation status, students who have higher levels of family achievement guilt tend to have higher levels of stress, anxiety, and depression symptoms. Further, my finding of family achievement guilt being a significant predictor of depression symptoms, after controlling for sociodemographic variables and first-generation status, is consistent with the findings of Covarrubias et al. (2015). However, anxiety, stress, and negative emotional symptoms have never been explored as outcome variables when exploring the predictive value of family achievement guilt because of the infancy of this research area. Thus, these findings of family achievement guilt being a significant predictor for these variables, after controlling for age, gender, ethnicity, income, and first-generation status are novel contributions to existing literature.

Furthermore, each facet of family achievement guilt had a positive relationship with each of the maladaptive outcomes. The Pearson correlations indicated that higher scores for *leaving family behind*, *having more privileges*, *becoming different*, and *experiencing financial distress or other pressures* were correlated with higher levels for each maladaptive outcome. Contradictory to my finding, one previous study by Covarrubias et al. (2015) found that each family achievement guilt facet was not associated with depression. Given that these findings are inconsistent with the only other study that has examined this association, further work investigating this relationship is warranted to provide clarity. The correlation between each facet of family achievement guilt and the other maladaptive outcomes has not been previously examined by researchers. Thus, to my knowledge, my findings extend the existing literature by suggesting that each facet has a positive association with anxiety, stress, and negative emotional symptoms. This means that each of the family achievement guilt facets are likely contributing to the mental health struggles among university students. In combination, my findings suggest that family achievement guilt is linked to depression, stress, and anxiety indicating that family achievement guilt is an understudied and overlooked experience that may be negatively impacting university students' mental health.

The positive associations between family achievement guilt and maladaptive outcomes have multiple probable explanations that will be discussed below. First, family achievement guilt has been found to have a negative relationship with self-esteem (Covarrubias et al., 2015), which may partially explain the association with depression symptoms. Second, worthlessness is a common symptom of depression across various cultures (Sartorius et al., 1980). Thus, depressive symptoms being positively correlated with family achievement guilt may be confounded by feelings of worthlessness that accompany this type of guilt. Third, the relationship between guilt and depression is so well accepted that excessive guilt is included in the *DSM-5-TR* depression diagnostic criteria (American Psychiatric Association, 2022). Guilt being a part of *DSM-5-TR* criteria is helpful in explaining how my finding was not unanticipated. However, I recognize that the *DSM-5-TR* is ethnocentric as it adopts a Westernized view of abnormality and fails to account for the social and cultural factors that may be crucial to understanding how depression is expressed and experienced (Ecks, 2015). Therefore, it is important to discuss additional factors that may help explain the association between family achievement guilt and the Westernized view of depressive symptoms.

The experiences associated with the *becoming different* facet may help rationalize the association with depressive symptoms. Qualitative research conducted by Covarrubias et al. (2021) in the U.S. has shown that Latinx and Asian first-generation students experiencing family achievement guilt feel distant and lose connections with their families as they become different due to their university experiences. My qualitative data reflected similar experiences under the *growing apart* theme, as many students shared that they were becoming distant from their families and unable to be emotionally vulnerable with their families after attending post-secondary. It is likely that the experience of growing apart partially explains the link to higher levels of depressive symptoms. The correlation between social support and mental health, as well as human beings fundamental need for connection is well known (Hefner & Eisenberg, 2009; Martino et al., 2015). Healthy relationships can buffer depressive symptoms and the loss of connection can contribute to depression (Hefner & Eisenberg, 2009; Martino et al., 2015). For example, Alsubaie et al. (2019) found that social support from family and friends was a significant predictor of depressive symptoms among university students. Thus, the loss and ruptures of familial relationships among students that experience family achievement guilt may likely explain the association with depressive symptoms (Covarrubias et al., 2021). Drawing from my qualitative findings, students experiencing family achievement guilt outlined experiences such as financial distress, pressure to succeed, and distress from not being able to fulfill familial roles, as they did prior to their university transition, that could also be contributing to the depressive symptoms among these students.

Many of the potential explanations described above can be used to understand the association between family achievement guilt and anxiety and stress symptoms. However, there are some specific aspects of family achievement guilt that may be contributing to these maladaptive outcomes in addition to depressive symptoms. First, the pressure to succeed and fear of failure that was qualitatively reported by many students may help us understand the positive correlation between family achievement guilt and anxiety, stress, and depression symptoms. Specifically, it may be the case that students that experience family achievement guilt tend to have perfectionism tendencies that act as a confounding variable that partially explains the positive association between family achievement guilt and maladaptive outcomes. Given that previous literature has linked perfectionism with anxiety, depression, and stress (Kannis-Dymand et al., 2020; Lamarre & Marcotte, 2021; Smith et al., 2016; Zhou et al., 2013), perfectionism tendencies may be an important factor to consider when teasing out the why behind these associations. Second, the association with stress can be understood using the same explanations, with the addition of financial stress, a common stressor for students who experience this type of guilt (Covarrubias et al., 2020; Covarrubias et al., 2021). Third, feelings of inauthenticity expressed by some students may explain the association with maladaptive outcomes. Previous psychology literature has shown that a lack of authenticity is connected to depression, anxiety, stress, and despair (Goldman & Kernis, 2002; Gipps, 2015; Hallam et al., 2006). Being authentic means that an individual is acting in alignment with their true self and authenticity has been known to be essential for psychological well-being (Goldman & Kernis, 2002; Rivera et al., 2019; Sutton, 2020). Illuminating the presence of inauthenticity in the experience of family achievement guilt, many students in this study reported that they were conforming to the expectations for their parents, motivated by solely extrinsic factors such as prestige and money, and living out their parents' dreams rather than following their own interests. Thus, it might be the case that feelings of inauthenticity confound the relationship between family achievement guilt and depression, anxiety, and stress symptoms.

Fourth, the impact of the COVID-19 pandemic is important to consider when interpreting and contextualizing the positive association between family achievement guilt and maladaptive outcomes. It might be the case that the transition back to in-person classes increased depression, anxiety, and stress symptoms among university students because of a lack of academic preparedness and the accompanying decrease in academic achievement (Becker et al., 2022; Engzell et al., 2021; Namkung et al., 2022). Given that online classes have different demands such as commuting, test-taking locations, and asynchronous components, many students may have been ill-prepared to succeed in person (Becker et al., 2022; Kuhfeld et al., 2020; Namkung et al., 2022). Thus, a lack of academic achievement resulting from a lack of academic preparedness caused by the COVID-19 pandemic may be confounding the positive correlation between family achievement guilt and maladaptive outcomes. Overall, my findings provide support for the maladaptive nature of family achievement guilt and there are numerous plausible explanations for the positive associations between family achievement guilt and depression, anxiety, and stress symptoms that require further investigation.

The Relationship Between Family Achievement Guilt and Empathic Concern

To further test the nature of family achievement guilt, empathic concern as a prosocial and adaptive variable was examined in this study. A Pearson correlation revealed that higher family achievement guilt scores were linked to higher levels of empathic concern. The findings from the hierarchical multiple regression indicated that family achievement guilt is a significant predictor of empathic concern, after controlling for age, gender, ethnicity, income, and first-generation status. Noteworthily, the predictive value of family achievement guilt was stronger for maladaptive outcomes compared to its predictive value for empathic concern. These findings were meaningful, as they suggest that the nature of family achievement guilt may consist of a duality of maladaptive and adaptive outcomes. In other words, based on my results family achievement guilt may impact an individual in a positive way (increase empathic concern) or in a negative way (increase stress, anxiety, and depression symptoms).

Focusing on the relationship between family achievement guilt and empathic concern, my findings were consistent with Covarrubias et al. (2020), who also found a positive association between family achievement guilt and empathic concern. Furthermore, previous studies have shown a positive correlation between guilt and empathy (Baumeister et al., 1994; Howell et al., 2012; Tangney, 1991, 1995). Thus, my finding of family achievement guilt being positively associated with empathic concern was not surprising. Existing literature suggests that guilt enables self-awareness, helps maintain important relationships, and motivates corrective action which may be the mechanisms behind the positive association between family achievement guilt and empathic concern (Lindsay-Hartz, 1984; O’Connor et al., 1997; Tangney, 1991). Pulling from the qualitative results, many students experiencing family achievement guilt reported being highly cognizant of their privileges, leaving family behind in adverse environments, and having an intense desire to give back to their family, which may also rationalize the positive link with empathic concern. Another possible explanation for the positive correlation between family achievement guilt and empathic concern is that family achievement guilt, up to a certain point, may be adaptative and conducive to optimal performance. Although there is no literature to support this position, it might be the case that family achievement guilt is like anxiety in the sense that a normal amount of anxiety is adaptative and essential to survival (Bateson et al., 2011). In other words, much like anxiety, family achievement guilt may exist on a continuum where too much of it is harmful but up to a certain threshold, it instills empathy and motivation. This was also highlighted in the qualitative data, as some students harnessed this guilt as a motivator and others shared that this guilt interfered with their daily life. Future studies should examine how the severity of family achievement guilt might play a role in determining if this type of guilt is adaptive or maladaptive.

In terms of the family achievement guilt facets, higher scores for *leaving family behind* and *having more privileges* were associated with higher levels of empathic concern. These correlations may be explained by Covarrubias et al.’s (2020) work that found that *leaving family behind* and *having more privileges* were the two facets positively associated with engagement in family roles and interdependent motives for education. These behaviours likely require the presence of empathic concern, possibly explaining why these facets had positive correlations with family achievement guilt. Additionally, a higher level of *experiencing financial distress or other pressures* was associated with empathic concern. It might be the case that empathic concern is a prerequisite to experience financial distress in this context and the pressure to give back to your family. On the other hand, *experiencing financial distress and other pressures* may make an individual more likely to be cognizant of other individuals' struggles and thus more empathic. *Becoming different* was the only facet that had no association with empathic concern. This finding makes sense because the *becoming different* facet entails a loss of connection that may inhibit the presence of empathic concern and potentially explain the lack of an association between these variables (Covarrubias et al. 2021). Overall, empathic concern being positively correlated with family achievement guilt suggests that family achievement guilt has the potential to have both adaptive and maladaptive consequences.

Research Question Four: What is the Relationship Between Family Achievement Guilt and Cultural Congruence?

The final research question called for an exploration of the relationship between family achievement guilt and cultural congruence. Pearson correlations indicated that lower levels of cultural congruence were associated with higher levels of family achievement guilt. This finding is consistent with the one study that found this type of guilt to be positively associated with cultural incongruence (Covarrubias et al., 2020). The link between low cultural congruence and high family achievement guilt suggests that classrooms that are incompatible with the cultural expectations of communities from which students come may be a key factor contributing to the incidence and prevalence of family achievement guilt (Hines & Atherton, 2015). The negative correlation between family achievement guilt and cultural congruence indicates that educators need to be made aware of the importance of cultural congruence and work with students to increase it (Hines & Atherton, 2015; Singer, 1998). For example, creating a classroom setting that adopts different social interactional styles (e.g., independent, collaborative, dependent, and participative) would increase the level of cultural congruence (Hamidah et al., 2009) and potentially decrease the prevalence of family achievement guilt.

Furthermore, cultural mismatch theory that indicates that inequity is inadvertently produced when the cultural norms in institutions do not match the norms of different student groups provides a probable explanation for the negative association between family achievement guilt and cultural congruence (Stephens et al., 2012). This finding supports the idea that the clash between some students' interdependent cultural norms, and typical independent cultural norms prompted in university, may be contributing to the occurrence of family achievement guilt because of the increased stress and discomfort that accompanies mismatch (Fryberg et al., 2013; Stephens & Townsend, 2015). Thus, family achievement guilt may in part be due to students feeling guilty for attending university, as it does not align with their interdependent norms. My findings extend cultural mismatch theory, as they highlight family achievement guilt as a potential outcome resulting from a clash between universities' cultural norms and students' cultural norms. The facet of *becoming different* and the distress associated with becoming distant from one's family may also explain why lower cultural congruence is associated with higher levels of family achievement guilt. My finding adds valuable evidence to the emergent area of family achievement guilt research, supports cultural mismatch theory, and illuminates the role institutions and educators potentially play in the prevalence of socioemotional experience.

Supplementary Themes

Although the results from the thematic analysis were not directly related to a research question, this supplementary analysis illuminates the human experience of family achievement guilt and complements the quantitative findings. The following seven themes were constructed to explain students' experience with family achievement guilt and the impact this guilt has had on them: (1) gratitude and awareness of privileges, (2) pressure to succeed, (3) mental health struggles, (4) motivation, (5) growing apart, (6) guilt inhibits new glimmers of enjoyment and opportunity, and (7) battle with authenticity. To my knowledge, there is only one peer-reviewed U.S. qualitative study on the topic of family achievement guilt (Covarrubias et al., 2021) which was conducted with low-income Latinx and Asian first-generation students to develop the four facets of family achievement guilt. Thus, my research findings extend past existing literature by being the first to look at qualitative data after the concept of family achievement guilt was fully developed. Below, each theme is synthesized alongside the existing literature.

To start, gratitude and awareness of privileges was not a surprising theme and supported the *having more privileges* facet (Covarrubias et al., 2021). However, my constructed theme extends current research (e.g., Covarrubias et al., 2021) because students reported not only an awareness of their privileges but gratitude for their parents' sacrifices and the opportunities, they have access to. Students described awareness and gratitude for the hardships (e.g., poverty, abuse, addiction, mental health issues, and language barriers) that their parents endured, which may explain the association we found between high family achievement guilt and high empathic concern. One student shared that they "feel extremely grateful for the opportunities [they] have because of [their] parents' sacrifices". Thus, it may be the case that awareness and gratitude may be prerequisites for students to feel guilt.

Awareness of one's privileges seemed to be joined with a pressure to prosper academically. Pressure to succeed was a saturated theme that is consistent with previous research (Covarrubias et al., 2020; Covarrubias et al., 2021). The pressure described by some students seemed unbearable, which may likely be connected to the negative mental health outcomes that are associated with family achievement guilt. This type of guilt may result in students struggling to cope with failures and developing perfectionism tendencies. Thus, the pressure students feel to succeed may be the aspect of family achievement guilt that contributes to maladaptive outcomes (Austin et al., 2009; Covarrubias et al., 2015) because many students shared that they have an "unimaginable amount of pressure and stress…to excel in all fields". Students also highlighted the importance of family and the desire to give back to their family that contributed to the pressure they felt. This qualitative finding aligns with existing literature that suggests that prioritizing familial relationships is associated with family achievement guilt (Stephens et al., 2012).

Mental health struggles was the third theme I created. This theme was not unexpected and echoed my quantitative findings of positive associations between family achievement guilt and maladaptive outcomes. When asked to describe the impact this guilt had on them, numerous students mentioned depression, anxiety, and stress, which were the same variables I measured in this study. Thus, my qualitative findings provided additional support for my quantitative results. This theme is consistent with the body of literature that supports the maladaptive nature of family achievement guilt (Austin et al., 2009; Covarrubias et al., 2015). Struggles with self-esteem, feelings of worthlessness, self-harm, and suicidal ideation are aspects of family achievement guilt that were stated by students that warrant further investigation and call of the attention of mental health providers.

Motivation was another theme generated to explain the data. Students shared that this type of guilt motivated them to excel academically and make the most of their opportunities. The students that turned this guilt into motivation may have been experiencing lower levels of guilt compared to those that described the strain this guilt put on their mental health. This probable explanation requires further investigation. Motivation as a constructed theme was interesting as it highlighted the often-overlooked strengths (e.g., resilience and grit) that accompany hardships. This theme supports previous research that argues that being a first-generation student may give one the advantage of having more grit and ability to respond to life's difficulties in a resilient way (Carpenter & Peña, 2017). Another possible rationale for this theme is that guilt is known to motivate corrective action and orient an individual in a constructive manner (Lewis, 1971; Lindsay-Hartz, 1984; Tangney, 1998). Thus, students experiencing family achievement guilt may view doing well academically as the corrective action that needs to be taken to rectify their guilt.

The next theme was growing apart, which consisted of students' experiences with distancing themselves from their families by avoiding conversations regarding their university experiences. Some students reported that they did not share their achievements or their failures with their families, which robbed them of the chance to be supported. For example, one participant shared that they are "reluctant to invite [their parents] to achievement ceremonies, gallery openings, etc". Generally, there was a sense of feeling misunderstood by their parents or fearing that this would be the case. Students felt like they were changing as they attended university and shared that losing connection with their family was a by-product. This theme was very similar to the *becoming different* facet of family achievement guilt, which consisted of growing distant or changing because of university experiences (Covarrubias et al., 2021). Moreover, the desire to minimize or hide academic successes around family members because of feelings of guilt has been reported in previous studies (Covarrubias et al., 2021; Piorkowski, 1982). The theme of growing apart is consistent with London's (1989) idea of breakaway guilt, in which he emphasized how familial relationships are disrupted when students change in university. Overall, the qualitative findings suggest that family achievement guilt limits family connection because it makes students hesitant about sharing university experiences. Given that family can be an important source of support for many students (Jabbar et al., 2019), family achievement guilt being a barrier to family connection was a concerning findings in terms of students feeling adequately supported during their academic endeavours.

Guilt inhibits new glimmers of enjoyment and opportunity as a theme is a unique contribution to the existing literature. The scarce studies that have focused on family achievement guilt have not touched on this experience outlined by my participants. Some students explained how their family achievement guilt prevented them from enjoying activities (e.g., having dinner with friends) and trying new experiences (e.g., extracurricular activities). Furthermore, family achievement guilt seems to impact engagement in social interactions and the creation of new friendships for some individuals. Thus, this type of guilt may decrease social support, contribute to isolation, and initiate self-sabotaging behaviours (e.g., not going to school events, not going to the gym, and avoiding friendships). Previous literature has shown that guilt focuses on the *act* and makes a person question how they can do such a bad thing (Lindsay-Hartz, 1984; Tangney, 1998). Thus, in theory, students may be trying to avoid feeling guilty by not engaging in the activities that they would potentially feel guilty about. Additionally, this theme aligns with the work of some researchers that have found that extreme guilt makes people want to punish themselves (Bamen, 1988; Kuntz, 1981). This theme can also be tied to the pressure to succeed theme as students might not want to do “fun” things because they believe all their time should be devoted to achieving academic success. This finding is concerning, as family achievement guilt may be impeding student success, diminishing social support, and sustaining inequities among disadvantaged student groups.

The final theme created to explain the data was battle with authenticity. Numerous students reported that they were living for their parents and acting in a manner that was consistent with who they thought they *should* be rather than who they *want* to be. For example, one student shared that they "do good for the sake of pleasing [their] family". Family achievement guilt seems to prevent students from living a life that is aligned with their values and passions. Interestingly, these qualitative findings support Erikson's third stage of psychosocial development, initiative versus guilt (Erikson, 1963). According to Erikson's theory, children who are punished for taking initiative will develop feelings of guilt that will impact self-directed activities throughout life (Erikson, 1968). This might have been the case for some of the students in this study. In the context of family achievement guilt, Erikson's theory would suggest that students may fear trying new things and feel like they are doing something wrong when they initiate self-directed activities (Berzoff, 2011; Erikson 1963, 1968). Helping students develop a strong sense of initiative may be an element crucial to combating family achievement guilt. Additionally, this theme highlights that potential relevance of Fritz Perls' (1951) work for the concept of family achievement guilt. Perls would argue that these students are acting how they think they *should, ought, or must,* rather than how they *want,* in effort to avoid the feeling of guilt (Perls, 1951). Dismantling students' *shoulds, oughts, and musts* may be a meaningful way for mental health professionals to understand and support these students.

The seven constructed themes garnered a deeper understanding of family achievement guilt. Some themes provided complementary evidence for the quantitative findings, whereas other themes illuminated additional areas of interest. The complexity and multifaceted nature of family achievement guilt was highlighted, implying that there is still much more exploration needed in this research area.

Limitations

While this study provides a novel exploration of family achievement guilt among Canadian university students, the findings must be interpreted in the context of some limitations. First, although family achievement guilt, anxiety symptoms, depression symptoms, and stress symptoms were measured using psychometrically robust scales and participation was voluntary, the possibility of social desirability bias cannot be ruled out. *Social desirability bias* refers to participants' tendency to choose responses that are more socially acceptable and viewed favourably by others rather than choosing responses that are reflective of their true thoughts or feelings (American Psychological Association, n.d.). This tendency could have resulted in under-reporting of self-reported family achievement guilt and the maladaptive outcomes. Another bias that could have impacted the data is voluntary response bias, meaning that certain students (e.g., students who have strong opinions about this topic) may have been more likely to participate, resulting in an under coverage of others (e.g., students who are not interested in the topic of the study). This type of bias often occurs in convenience sampling, the technique used for this study (Embretson & Hershberge, 1999).

Second, there are a few limitations related to the generalizability of the findings. My sample was dominantly female, which is likely the result of recruitment via SONA, a platform that provides psychology students, a group of students known to have an overrepresentation of women (Costa et al., 2001). Thus, these findings cannot be generalized to males or other genders. The experience of family achievement guilt among other genders will need to be investigated in future studies. Moreover, these findings may not be generalizable to all Canadian universities, as most of my sample was University of Lethbridge students. Unfortunately, I did not have an ethnically diverse sample, as the sample consisted of predominately White students. Thus, I was unable to examine potential ethnic differences in the context of family achievement guilt. Future research, with a larger number of students from various ethnic groups is needed to examine the potential cultural specificity of family achievement guilt. Additionally, my study failed to account for students who have estranged family relationships, an experience that should be accounted for in further studies.

The third limitation to be mindful of is that I measured the Westernized view of what depression, anxiety, and stress symptoms look like. The DASS-21 draws from the *DSM-5-TR* that is based on the Westernized conceptualization of mental health (Ecks, 2015). Furthermore, the *DSM-5-TR* criteria for depression are not sensitive to the presentation of depression in men so this may have influenced the level of depression symptoms reported in my smaller group of male participants (Oliffe & Phillips, 2008). Qualitative research in the future may be the best way to capture the nuances and potential differences in how depression, anxiety, and stress related to family achievement guilt are experienced by various students.

Finally, the study's cross-sectional design precluded my ability to determine the temporal sequencing of events because all the data was collected at a single point in time. Therefore, when interpreting the findings, the significant relationships between family achievement guilt and maladaptive outcomes, empathic concern, and cultural congruence must be viewed as being indicative of associations, rather than causal relationships. Future longitudinal studies would be valuable to garner insight into the temporal sequencing of the variables and monitor change in family achievement guilt, maladaptive outcomes, and empathic concern.

Future Directions

My study provided novel findings and brought attention to an important area of research. However, family achievement guilt research is still in its infancy, meaning that a great deal is yet to be discovered. This section provides future directions for three groups: (1) researchers, (2) university institutions, and (3) mental health professionals.

Future Directions for Researchers

Within the context of this study, there are several future directions for researchers in addition to the aforementioned recommendations throughout the discussion. First, subsequent research should replicate this study with a larger sample of students from diverse ethnic backgrounds, universities, and genders to assess the generalizability of my findings. Second, this research is the second study to use the family achievement guilt scale meaning that it is still a tool that needs further validation. Future research should aim to test the psychometric properties of the scale using a larger, more diverse sample. Researchers should also conduct confirmatory factor analysis to assess if the four facets of family achievement guilt are consistent among different student populations (Covarrubias et al., 2020). This would allow for researchers to infer that the current four facets of family achievement guilt are generalizable.

Third, I focused on depressive symptoms, anxiety symptoms, stress symptoms, and empathic concern as potential manifestations of guilt. Future research should explore the different ways family achievement guilt can psychologically and behaviorally manifest in university students (Covarrubias & Fryberg, 2015). My study points towards perfectionism tendencies, isolation, inauthenticity, motivation, and self-sabotage in the form of disengagement as potential manifestations of this guilt that warrant examination. Fourth, another potential avenue for researchers is to investigate if social support moderates the relationship between family achievement guilt and maladaptive outcomes. Fifth, the impact family achievement guilt has on one’s academic performance is unknown. A longitudinal study would be effective to address this gap in the family achievement guilt literature as it would allow for the researcher to account for the temporal sequencing of variables.

Sixth, qualitative work and participant-driven research is another area for future research that should draw the attention of researchers. Specifically, semi-structured interviews with students who identify as experiencing family achievement guilt is an essential next step. Arguably, understanding the lived experiences of students who experience family achievement guilt will provide invaluable insights into what this guilt entails and inform the development, implementation, and effectiveness testing of supports. Participant-driven research would consist of involving students who experience family achievement guilt throughout the entire research process to ensure the findings reflect their voices and nuanced human experiences. Undoubtedly, the concept of family achievement guilt is emergent and an exciting area of research that presents a multitude of possibilities for researchers.

Future Directions for University Institutions

Understanding and addressing family achievement guilt highlights an opportunity for institutions to grow in the ways they serve and support students. Specifically, the experience of family achievement guilt may need to be given attention and action for institutions to combat mental health challenges of university students nationwide. Post-secondary institutions should appreciate the crucial role families play in students' lives, particularly the support and knowledge students can receive from their families throughout the duration of their university experience (Jabbar et al., 2019; Marrun, 2020). A major way university institutions can support students and prevent the potential loss of connection associated with family achievement guilt is by providing workshops for students' parents to be educated about the university experience, grading systems, opportunities, extracurriculars, culture, norms, and so forth. These workshops could help sustain relationships by bridging the knowledge gap that is likely leading to students feeling misunderstood by their families. All educational stakeholders (e.g., professors, academic advisors, and administrators) should also be presented with workshops that bring general awareness to what family achievement guilt is, and what challenges can arise from this experience. An introduction to this concept would potentially increase these individuals' conscientiousness regarding this socioemotional experience and create more supportive environments.

Furthermore, given that I found higher levels of cultural congruence to be associated with lower levels of family achievement guilt institutions should make efforts to create a match between students' home culture and university culture. A starting point for this goal would be to increase awareness as to how systemic mismatches between a student's norms and the university norms can contribute to the experience of family achievement guilt and potential maladaptive outcomes. Creating norms and structures that help students develop better interpersonal support networks may be a way to mimic the interdependent cultural norms that are often lacking in institutions but are fundamental for first-generation and racialized students. Without the creation of structures that make university feel like an endeavour that aligns with certain students' interdependent norms, family achievement guilt may always persist as students may view university as a selfish act that they must feel guilty for. Covarrubias et al. (2020) also suggests that using community-oriented phrasing such as "we" instead of individualistic words such as "you", in university messaging (e.g., infographics) can help first-generation students feel less guilty for leaving their families behind.

In addition to cultural congruence, financial pressure and the desire to give back to one's family are critical components of family achievement guilt (Covarrubias et al., 2021). Thus, another way institutions can act is by creating more paid internship opportunities, so that students do not have to choose between prioritizing their academic development and financially supporting their families (Covarrubias et al., 2020). Similarly, institutions could consider creating specific scholarships and bursaries for students impacted by family achievement guilt to help mitigate potential financial hardships.

Future Directions for Mental Health Professionals

University counselling centres and individual therapists play a vital role in responding to the increase in mental health concerns among students nationwide (Kitzrow, 2002). Counsellors have an ethical obligation to be aware of diverse cultural experiences impacting marginalized students, such as family achievement guilt. Practicing cultural humility allows for counsellors to not make automatic general assumptions and instead respond to the nuanced needs of each client (Watkins et al., 2019). These findings emphasize the need for counsellors to increase their awareness of family achievement guilt and the associated maladaptive outcomes so they can create safe spaces informed by cultural humility to normalize students' lived experiences.

Three main ways to increase mental health professionals' awareness of family achievement guilt will be discussed below: (1) workshops led by counsellors, (2) workshops led by students with lived experience, and (3) incorporation of this concept into graduate education. First, to provide effective training, some counsellors could become experts on the topic of family achievement guilt so they can run workshops to provide educational opportunities for other mental health professionals to increase their competency in this specific area. Learning from other professionals may be an effective way for counsellors to garner ideas about how this topic can be integrated into their services. Second, the value of learning from students that have lived experience would be invaluable for counsellors. Organizing a workshop like this would allow counsellors to work in collaboration with students to see how they can best provide support and obtain an in-depth understanding of the nuances of family achievement guilt. Third, the concept of family achievement guilt should be taught to graduate students as they prepare themselves for practice. By learning about family achievement guilt in graduate classes, counsellors can increase their awareness of this topic and adequately equip themselves to address this topic in sessions. Once mental health professionals have a grasp on what family achievement guilt is they can spread this knowledge among their professional circles and advocate for other mental health professionals to give this topic attention as they aim to practice cultural humility and meet the needs of *all* individuals.

Awareness is often not enough without action so below I will discuss some ways counsellors can use their knowledge to create effective individualized sessions to support students impacted by family achievement guilt. First, when assisting students that are struggling with family achievement guilt mental health professionals should be mindful of the intersectionality between multiple minority identities that might be at play for these university students, so the interventions being used are culturally sensitive (McClain et al., 2015). Second, counsellors should help these students make sense of their feelings by encouraging in-depth explorations of their fears, stressors, anxieties, and narratives that are attached to the experience of family achievement guilt. To assist students in understanding their socioemotional experience and making sense of their feelings, counsellors should provide the appropriate language, definitions, and labels linked to family achievement guilt. Third, mental health professionals can help students understand that they are not alone in their experience of family achievement guilt by normalizing and validating this experience and perhaps sharing resources, such as this research, that make the students feel seen. Fourth, counsellors should empower students by affirming their worth and challenging their feelings of worthlessness that are potentially connected to family achievement guilt. Fifth, my findings point to some specific areas that counsellors should be mindful of when developing strategies for a student to combat family achievement guilt. These areas are perfectionism, inauthenticity, imposter syndrome, self-sabotage, and a lack of sense of belonging. However, it is crucial for counsellors to know that a one-size-fits-all counselling approach will be ineffective, as my findings allude to the fact that students experience family achievement guilt differently. Thus, collaboration and a client-driven approach in counselling is recommended. Sixth, mental health professionals will be vital in understanding what types of interventions are most effective for addressing family achievement guilt by providing their clinical expertise to generate practice-based evidence for other professionals to draw from (Dixon, 2022).

In addition to individual therapy, family therapy may be important to address some aspects of family achievement guilt. Specifically, the aspect of growing apart from one’s family and struggling to share achievements, failures, and feelings may be an area that would improve from the support of a family therapist. Thus, family therapists may be key players in helping university students struggling with family achievement guilt to improve their communication with their family members, increase understanding between family members, and rebuild the support students may have been lacking from their families. Just like all other mental health professionals, family therapists should increase their awareness of family achievement guilt to provide safe spaces to discuss family expectations, pressures, disconnect, lack of communication, and so forth that might potentially mitigate the maladaptive outcomes that are associated with family achievement guilt.

Overall, all mental health professionals should be made aware of family achievement guilt as they play a vital role in supporting university students. Evidently, family achievement guilt is a socioemotional experience that deserves the attention of the mental health field to ensure the unique needs of students impacted by this phenomenon are being addressed. The hope is that as family achievement guilt research unfolds in the coming years, mental health professionals effectively incorporate this evidence into their practice to provide inclusive and effective services.

Conclusion

The overarching aim of the study to further explore the concept of family achievement guilt among university students within the Canadian context was achieved. First-generation students were found to have higher levels of family achievement guilt compared to continuing-generation students. Racialized students reported higher family achievement guilt scores compared to White students. Family achievement guilt was found to have a positive association with maladaptive outcomes (depression, anxiety, and stress symptoms) and adaptive outcomes (empathic concern). Moreover, family achievement guilt was a significant predictor of stress symptoms, anxiety symptoms, depression symptoms, and empathic concern, after controlling for age, gender, ethnicity, income, and first-generation status. Finally, cultural congruence was found to have a negative association with family achievement guilt and the four family achievement guilt facets. This study contributes to the scarcity of research on this topic and highlights numerous directions for future research. These findings should be used to inform higher education institutions and mental health professionals as they aim to support and address the needs of a diverse student body.

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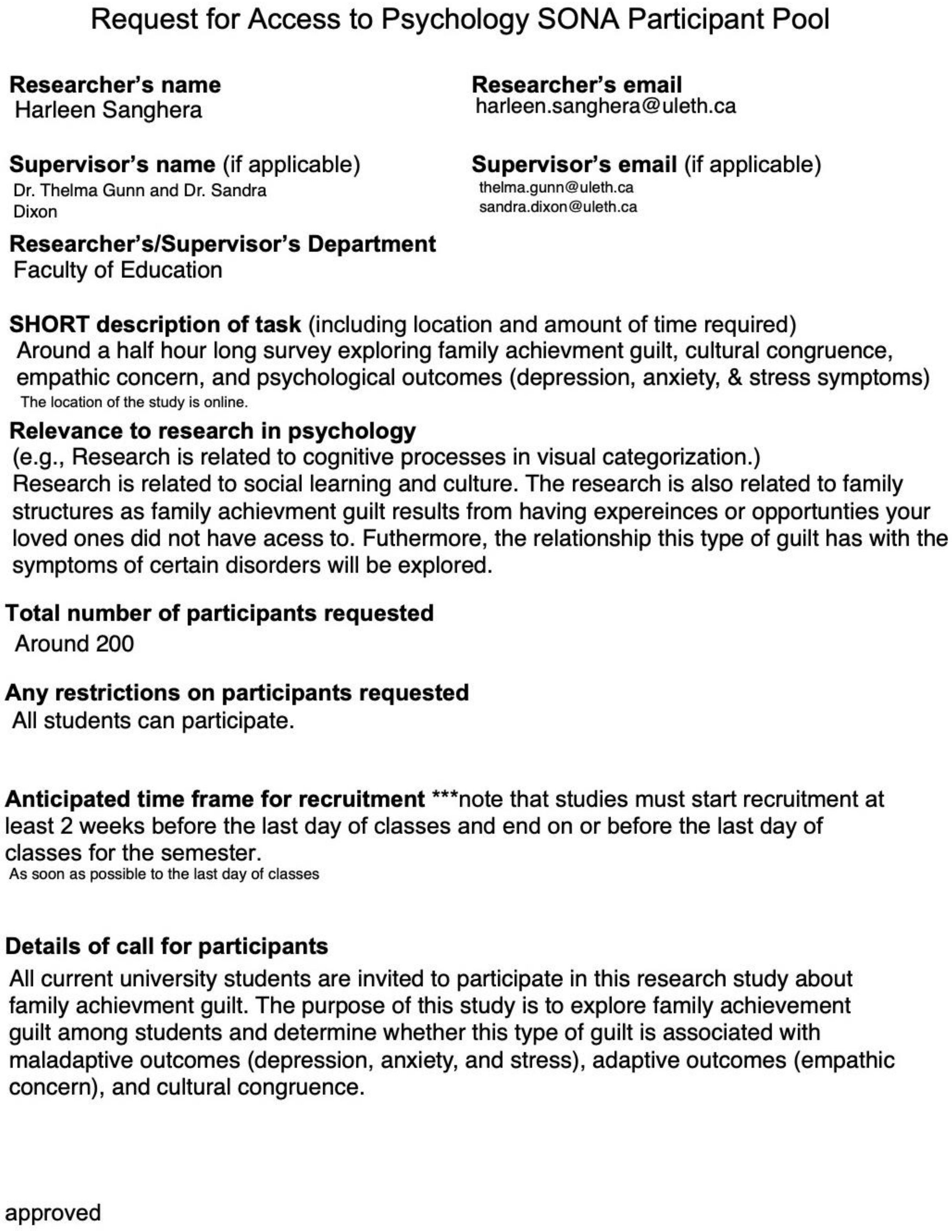
Appendix A: Request for Access to Psychology SONA Participant Pool



Request for Access to Psychology SONA Participant Pool

Researcher's name
Harleen Sanghera

Researcher's email
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Supervisor's name (if applicable)
Dr. Thelma Gunn and Dr. Sandra Dixon

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Researcher's/Supervisor's Department
Faculty of Education

SHORT description of task (including location and amount of time required)
Around a half hour long survey exploring family achievment guilt, cultural congruence, empathic concern, and psychological outcomes (depression, anxiety, & stress symptoms)
The location of the study is online.

Relevance to research in psychology
(e.g., Research is related to cognitive processes in visual categorization.)
Research is related to social learning and culture. The research is also related to family structures as family achievment guilt results from having expereinces or opportunties your loved ones did not have acess to. Futhermore, the relationship this type of guilt has with the symptoms of certain disorders will be explored.

Total number of participants requested
Around 200

Any restrictions on participants requested
All students can participate.

Anticipated time frame for recruitment ***note that studies must start recruitment at least 2 weeks before the last day of classes and end on or before the last day of classes for the semester.
As soon as possible to the last day of classes

Details of call for participants
All current university students are invited to participate in this research study about family achievment guilt. The purpose of this study is to explore family achievement guilt among students and determine whether this type of guilt is associated with maladaptive outcomes (depression, anxiety, and stress), adaptive outcomes (empathic concern), and cultural congruence.

approved

Appendix B: Demographic and Student Information Questions

What is your gender identity?
- Man
- Woman
- Non-binary
- Transgender
- Other: ___
- Prefer not to say

How old are you? (Constructed as a pull down)
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29
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- 31
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- 33
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- 49
- 50
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- 56
- 57
- 58
- 59
- 60
- 60+

What is your ethnicity? *
- White
- African Canadian, Black, or Caribbean
- Indigenous (First Nation, Metis, Inuit)
- Latinx, Hispanic, or Chicanx
- Arab
- Chinese
- Filipino
- Japanese
- Korean
- South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
- Southeast Asian (e.g., Vietnamese, Cambodian, Thai, etc.)
- West Asian (e.g., Iranian, Afghan, etc.)
- Pacific Islander
- Other: ___

*note: adapted from the Tri-Agency self-identification question

What is your employment status?
- Part-time

- Full-time
- Unemployed
- Prefer not to say

What is your living arrangement?

- On-campus
- Off-campus
- Other: ___

What is your estimated annual total family household income?

- Less than $19,999
- $20,000 to less than $39,999
- $40,000 to less than $59,999
- $60,000 to less than $79,999
- $80,000 to less than $99,999
- $100,000 to less than $149,999
- $1500,000 and over
- Prefer not to say

Did you leave your parents household to attend post-secondary?

- Yes
- No
- Other: ___

Are you an immigrant student?

- Yes
- No
- Prefer not to say

How many siblings do you have?

- 0
- 1
- 2
- 3
- 4
- 5 or more

What university are you currently attending?

- ○ University of Lethbridge
- ○ University of Calgary
- ○ University of Alberta
- ○ University of British Columbia
- ○ University of Victoria
- ○ University of Manitoba
- ○ University of Saskatchewan
- ○ Mount Royal University
- ○ University of Toronto
- ○ University of Ottawa
- ○ Western University
- ○ Queen’s University
- ○ University of New Brunswick
- ○ Dalhousie University
- ○ McGill University
- ○ McMaster University
- ○ Other: ___

As of today, what is your estimated cumulative GPA (on a 4.0 scale)?

- ○ 0.0-1.0
- ○ 1.1-1.9
- ○ 2.0
- ○ 2.1
- ○ 2.2
- ○ 2.3
- ○ 2.4
- ○ 2.5
- ○ 2.6
- ○ 2.7
- ○ 2.8
- ○ 2.9
- ○ 3.0
- ○ 3.1
- ○ 3.2
- ○ 3.3
- ○ 3.4
- ○ 3.5
- ○ 3.6
- ○ 3.7
- ○ 3.8
- ○ 3.9
- ○ 4.0
- ○ Other: ___

What is your current academic level?

- ○ First year undergraduate
- ○ Second year undergraduate
- ○ Third year undergraduate
- ○ Fourth year undergraduate
- ○ Fifth+ year undergraduate
- ○ Masters Degree
- ○ Doctorate Degree (PhD)
- ○ Professional Degree (MD, JD)
- ○ Other: ___

What is your area of study?

- Psychology
- Education
- Health Sciences
- Business
- Nursing
- Science (Biology, Chemistry, Geology, etc.)
- Engineering
- Kinesiology
- Social work
- Mathematics
- Arts (English, History, Sociology, Anthropology, etc.)
- Fine Arts (Music, Drama, Dance, etc.)
- Other: ___

What motivated your major/occupation choice?

- Personal interest, enjoyment, and satisfaction
- Parental desires/pressure
- Peer pressure
- Societal pressure
- Other: ___

What is the highest level of education obtained by your parent(s)/guardian(s)? Please select the option that applies for each parent(s)/guardian(s).

Parent/Guardian 1

- No education
- Less than high school
- Some high school
- High school diploma
- Some college
- two-year college degree
- four-year postsecondary degree
- Graduate or professional degree (Masters degree, PhD, JD, MD)
- I don't know

Parent/Guardian 2

- Less than high school
- Some high school
- High school diploma
- Some college
- two-year college degree
- four-year postsecondary degree
- Graduate or professional degree (Masters degree, PhD, JD, MD)
- I don't know

Appendix C: Family Achievement Guilt Scale

Instructions: University is a time when students experience a lot of ups and downs. The following statements highlight some challenging emotions students might feel as they compare their experiences in university with their experiences back home. Students might feel these emotions despite the support they receive from close others back home (e.g., parents, legal guardians, siblings). Carefully read each statement below and rate the extent to which you agree with these statements on a scale from 1 (strongly disagree) to 6 (strongly agree).

Response Options:

(1) Strongly Disagree
(2) Disagree
(3) Somewhat Disagree
(4) Somewhat Agree
(5) Agree
(6) Strongly Agree

Items:

1. I feel pressured to do well so I don’t disappoint my family (EP)
2. I feel bad if my family thinks that I am not doing well in university (e.g., academically, socially, mentally) (EP)
3. I worry that I won't be able to meet the expectations of my family (EP)
4. I worry that I won't be able to repay my family for their investment in me (e.g., working long hours, educational support) (EP)
5. I worry that I won't be able to succeed in university for my family (EP)
6. I feel bad for focusing on school when there are problems at home (LFB)
7. I worry I am neglecting family or responsibilities back home when I am away at school (LFB)
8. I feel uncomfortable talking about my academic goals in front of my family (BD)
9. I worry that my family sees me differently now that I am in university (BD)
10. I worry that my family thinks I am too good for them or smarter than them (BD)
11. I feel frustrated when my family thinks I'm "all that" now that I'm in university (BD)
12. I feel sad that family cannot experience the opportunities I have in university (HMP)
13. I feel conflicted that I have more freedom in university than family members have back home (HMP)
14. I feel bad that my family didn't have the opportunity to go to university (HMP)
15. I feel sad that I have more opportunities (e.g., learning new material, attending social events) in university than family members have back home (HMP)
16. I feel bad that I have benefits in university (e.g., freedom, privacy) that my family does not (HMP)
17. I feel bad that I have it pretty good in university while family members struggle (HMP)
18. I feel sad when I hear about struggles back home while I'm away at university (LFB)
19. I feel angry that my family doesn't have access to the same kind of opportunities that I do (HMP)
20. I feel sad when I can't help with challenges back home (LFB)

21. I worry about my family back home since I am not there anymore (LFB)
22. I feel bad that I am not there when my family needs me (LFB)
23. It bothers me when school keeps me from participating in activities back home (LFB)
24. I feel bad for leaving home to pursue my interests in university (LFB)
25. I feel frustrated when I am not in the loop about challenges back home (LFB)
26. I feel bothered when I can't help my family because of school (LFB)
27. I feel bad when my school responsibilities prevent me from helping out at home (LFB)
28. I feel bad for not being able to fulfill my responsibilities back home (LFB)
29. I feel bad because going to university means many sacrifices from my family (LFB)
30. I feel sad when my family doesn't seem to understand my university experiences (BD)
31. I worry if my family thinks that I'm changing in university (BD)
32. I feel bad when my family thinks that university is changing me (BD)
33. I feel bad when I disagree with the opinions of my family, even if I keep it to myself (BD)
34. I feel sad that my family is not exposed to the things I'm learning in university (HMP)

Subscales: LFB = Leaving Family Behind, HMP = Having More Privileges, BD = Becoming Different, EP = Experiencing Pressures

Citation:
Covarrubias, R., Landa, I., & Gallimore, R. (2020). Developing a family achievement guilt scale grounded in first-generation college student voices. *Personality and Social Psychology Bulletin*, 46, 1–14. https:// doi.org/10.1177/0146167220908382

Appendix D: Cultural Congruity Scale

Instructions: For each of the following items, indicate the extent to which you have experienced the feeling or situation at school on a scale from 1 (Not at all) to 7 (A great deal).

Response Options:

(1) Not at all
(2)
(3)
(4)
(5)
(6)
(7) A great deal

Items:

1. *I feel that I have to change myself to fit in at school
2. *I try not to show the parts of my cultural background at school
3. *I often feel like a chameleon, having to change myself depending on the person I am with at school
4. *I feel that my cultural identity is incompatible with other students
5. I can talk to my friends at school about my family and culture
6. *I feel I am leaving my family values behind by going to school
7. *My cultural values are in conflict with what is expected at school
8. I can talk to my family about my friends from school
9. *I feel that my language and/or appearance make it hard for me to fit in with other students.
10. *My family and school values often conflict
11. I feel accepted at school
12. I feel as if I belong on this campus
13. I can talk to my family about my struggles and concerns at school

*Items are reverse scored

Citation:

Gloria, A. M., & Kurpius, S. E. R. (1996). The validation of the cultural congruity scale and the university environment scale with Chicano/a students. *Hispanic Journal of Behavioral Sciences, 18*(4), 533–549. https://doi.org/10.1177/07399863960184007

Appendix E: Depression Anxiety Stress Scales (DASS21)

Instructions: Please read each statement and select which indicate how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

(0) Did not apply to me at all
(1) Applied to me to some degree, or some of the time
(2) Applied to me to a considerable degree, or a good part of time
(3) Applied to me very much, or most of the time

Items:

1. I found it hard to wind down (S)
2. I was aware of dryness of my mouth (A)
3. I couldn't seem to experience any positive feeling at all (D)
4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion) (A)
5. I found it difficult to work up the initiative to do things (D)
6. I tended to over-react to situations (S)
7. I experienced trembling (eg, in the hands) (A)
8. I felt that I was using a lot of nervous energy (S)
9. I was worried about situations in which I might panic and make a fool of myself (A)
10. I felt that I had nothing to look forward to (D)
11. I found myself getting agitated (S)
12. I found it difficult to relax (S)
13. I felt down-hearted and blue (D)
14. I was intolerant of anything that kept me from getting on with what I was doing (S)
15. I felt I was close to panic (A)
16. I was unable to become enthusiastic about anything (D)
17. I felt I wasn't worth much as a person (D)
18. I felt that I was rather touchy (S)
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat) (A)
20. I felt scared without any good reason (A)
21. I felt that life was meaningless (D)

Subscales: D = Depression, A = Anxiety, S = Stress

Citation:

Lovibond, S.H. & Lovibond, P.F. (1995). *Manual for the Depression Anxiety Stress Scales*. (2nd ed.). Psychology Foundation.

Appendix F: Empathic Concern Subscale (ECS) of the Interpersonal Reactivity Index

Instructions: The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you using a scale from 1 (Does not describe me well) to 5 (Describes me very well).

Response Options:

(1) Does not describe me well
(2)
(3)
(4)
(5) Describes me very well

Items:

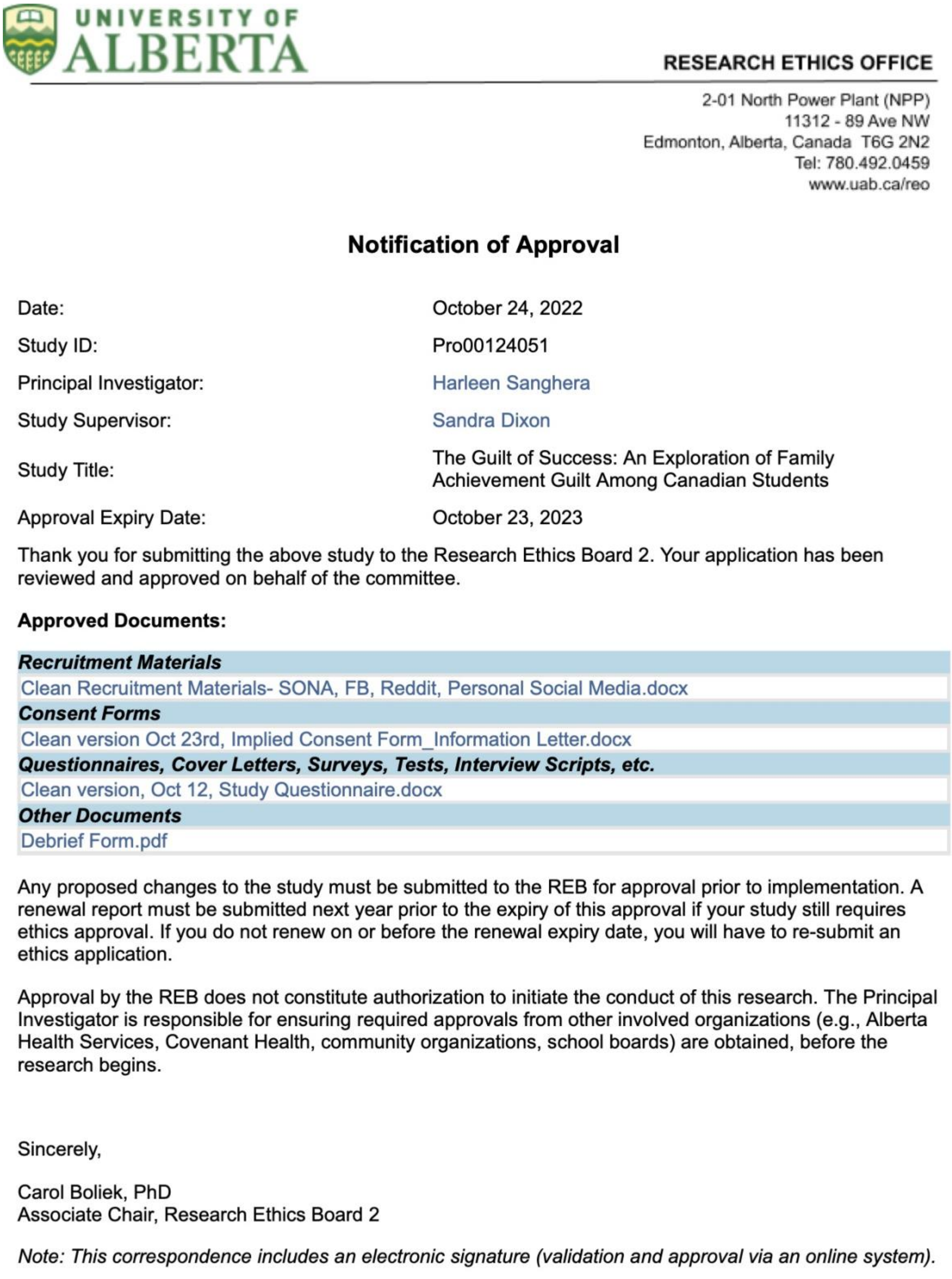
1. I often have tender, concerned feelings for people less fortunate than me
2. *Sometimes I don't feel very sorry for other people when they are having problems
3. When I see someone being taken advantage of, I feel kind of protective towards them
4. *Other people's misfortunes do not usually disturb me a great deal
5. *When I see someone being treated unfairly, I sometimes don't feel very much pity for them
6. I am often quite touched by things that I see happen
7. I would describe myself as a pretty soft-hearted person

*Items are reverse scored

Citation:

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*(1), 113–126. https://doi.org/10.1037/0022-3514.44.1.113

Appendix G: Research Ethics Board Letter of Approval



UNIVERSITY OF ALBERTA

RESEARCH ETHICS OFFICE

2-01 North Power Plant (NPP)
11312 - 89 Ave NW
Edmonton, Alberta, Canada T6G 2N2
Tel: 780.492.0459
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Notification of Approval

Date:	October 24, 2022
Study ID:	Pro00124051
Principal Investigator:	Harleen Sanghera
Study Supervisor:	Sandra Dixon
Study Title:	The Guilt of Success: An Exploration of Family Achievement Guilt Among Canadian Students
Approval Expiry Date:	October 23, 2023

Thank you for submitting the above study to the Research Ethics Board 2. Your application has been reviewed and approved on behalf of the committee.

Approved Documents:

Recruitment Materials
Clean Recruitment Materials- SONA, FB, Reddit, Personal Social Media.docx
Consent Forms
Clean version Oct 23rd, Implied Consent Form_Information Letter.docx
Questionnaires, Cover Letters, Surveys, Tests, Interview Scripts, etc.
Clean version, Oct 12, Study Questionnaire.docx
Other Documents
Debrief Form.pdf

Any proposed changes to the study must be submitted to the REB for approval prior to implementation. A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the REB does not constitute authorization to initiate the conduct of this research. The Principal Investigator is responsible for ensuring required approvals from other involved organizations (e.g., Alberta Health Services, Covenant Health, community organizations, school boards) are obtained, before the research begins.

Sincerely,

Carol Boliek, PhD
Associate Chair, Research Ethics Board 2

Note: This correspondence includes an electronic signature (validation and approval via an online system).

Appendix H: Implied Consent Form/Information Letter

University of
Lethbridge

FIAT LUX

Consent Form
Information Letter Implied Consent

Please take the time to read this consent form carefully.

Title of the Study: The Guilt of Success: An Exploration of Family Achievement Guilt Among Canadian Students

Principal Investigator: Harleen Sanghera
MEd Student, Counselling Psychology
University of Lethbridge
Lethbridge, AB
Faculty of Education, Counselling Psychology
harleen.sanghera@uleth.ca

Supervisors: Dr. Thelma Gunn and Dr. Sandra Dixon
University of Lethbridge
Lethbridge, AB
Faculty of Education, Counselling Psychology
thelma.gunn@uleth.ca and sandra.dixon@uleth.ca

Invitation to Participate: You are invited to participate in this research study about family achievement guilt because you are a current university student.

Purpose of the Study: The purpose of this study is to explore family achievement guilt among students and determine whether this type of guilt is associated with maladaptive outcomes (depression, anxiety, and stress), adaptive outcomes (empathic concern), and cultural congruence. Potential differences in family achievement guilt between different ethnic group will also be explored. This research is being conducted to better understand the unique experience of diverse students and to inform counsellors, institutions, and social workers so students' unique needs can be addressed.

Participation: If you wish to participate in this study, please complete the attached survey. The survey should take you approximately 25 minutes to complete. You do not have to answer any questions that you do not want to answer. Once you have completed the survey, please click the "submit" button. Participation in this study is completely voluntary, and you may stop at any time if you feel uncomfortable.

Benefits: By participating in this study, you will provide data that will contribute to an increase in knowledge surrounding family achievement guilt among students. The data you provide will help refine and develop services to better cater to student needs and well-being.

Risks: The study may cause undue distress for some participants when answering questions related to family achievement guilt and negative emotional symptoms (depression, anxiety, and stress). If this study causes you any emotional upset and you would like to speak with a counselor, counseling services are available through the University of Lethbridge which are currently being offered in-person, via Zoom or over the phone. To book a free appointment with a counselor, please call 403-317-2845 or email counselling.services@uleth.ca. Appointment intakes are available from 9:00am -3:30pm on weekdays. The Distress Line of Southwestern Alberta is also available 24/7 at 403-327-7905 or 1-888-787-2880 (*for participants recruited through the University of the Lethbridge SONA system*). If you wish to seek support please contact Crisis Services Canada, a 24/7 hotline, at 1-833-456-4566 (*for all participants, particularly those recruited through social media and snowball sampling).* Otherwise, there are no reasonably foreseeable risks, harms or inconveniences to you as a participant of this study.

Confidentiality and Anonymity: The information that you will share will remain strictly confidential and will be used solely for the purposes of this research. A study ID will be created for each participant and the only people who will have access to the research data are the primary investigator and her supervisor. Your answers to open-ended questions may be used verbatim in presentations and publications but neither you (nor your organization) will be identified. In order to minimize the risk of security breaches and to help ensure your confidentiality we recommend that you use standard safety measures such as signing out of your account, closing your browser and locking your screen or device when you are no longer using them / when you have completed the study." Results will be published in pooled (aggregate) format. Anonymity is guaranteed since you are not being asked to provide your name or any personal information. Given that this study is an online survey your privacy cannot be guaranteed.

Data Storage: Electronic copies of the survey will be encrypted and stored on the researcher's password protected computer for a minimum period of 5 years.

Compensation: You will receive 0.5 bonus course credit for completing the study (*for participants recruited through the University of Lethbridge SONA system).* You will have the opportunity to enter a draw to win one of four $50 amazon gift cards (*for participants recruited through social media and snowball sampling*). To enter the draw, you will provide your email address using a separate link, so the researcher can contact the winners. The odds of winning the draw are approximately 1 in 50. Winners will be required to answer a skill testing question. However, the email address will be collected on a separate page to make sure your responses are not connected to your contact information. If you choose to withdraw from the study, you will still receive this compensation. Thus, extra course credit will be awarded even if you choose to withdraw prior to completion of the survey.

Voluntary Participation: You are under no obligation to participate and if you choose to participate, you may refuse to answer questions that you do not want to answer. Should you choose to withdraw midway through the electronic survey simply close the link and no responses will be included. Given the anonymous nature of the survey, once you have submitted your responses it will no longer be possible to withdraw them from the study.

Information about the Study Results: The research findings from this study are anticipated to be disseminated as a thesis, published peer-reviewed article, and at research conferences. You will be able to follow up with the researcher to be informed about the research findings or ask any other questions using the contact information below.

Contact Information: If you have any questions or require more information about the study itself, you may contact the researcher at the following email: harleen.sanghera@uleth.ca or the supervisors at the following emails: thelma.gunn@uleth.ca and sandra.dixon@uleth.ca

Contingent on obtaining ethics approval: The plan for this study has been reviewed by a Research Ethics Board (Pro00124051) at the University of Alberta. If you have any questions regarding your rights as a research participant or how the research is being conducted, you may contact the Research Ethics Office at 780-492-2615.

Please print a copy of this form for your records.

Completion and submission of the survey means your consent to participate.

By completing and submitting the survey your *free and informed consent is implied*. Below you will be asked whether you consent to participate in this study. By clicking “yes”, you are indicating 1) you understand to your satisfaction the information provided to you about your participation in this research study, and 2) you agree to participate in the research study.

In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from this research study at any time.
If you do not wish to consent to participate in this study, please click “no”. If you click “no”, the study will terminate immediately, and you will be debriefed.

Appendix I: Debrief Form

Thank you for taking the time to participate in this study! The purpose of this study is to further explore the concept of family achievement guilt among students. Previous literature suggests that family achievement guilt is a socioemotional experience some students might face related to surpassing or "leaving family" to attend university (Covarrubias & Fryberg, 2015). However, little is known about this student experience. The specific aims of this exploratory study are threefold: (1) to determine if the prevalence of family achievement guilt differs between first-generation and continuing-generation students (2) to explore the nature of family achievement (maladaptive vs adaptive) (3) to determine if the prevalence of family achievement guilt differs between various ethnic groups. The findings from this study will be used to expand our understanding of this student experience, potentially decrease attrition rates, and inform counsellors, social workers, and institutions so unique needs can be addressed. The current study has the potential benefit of informing the creation of services that address the needs that accompany family achievement guilt.

If you have further questions about the study, please contact Harleen Sanghera at harleen.sanghera@uleth.ca or Dr. Sandra Dixon at sandra.dixon@uleth.ca or Dr. Thelma Gunn at thelma.gunn@uleth.ca. If this study caused you any emotional distress, please access the University of Lethbridge counseling services: 403-317-2845 or counselling.services@uleth.ca. The Distress Line of Southwestern Alberta is also available 24/7 at 403-327-7905 or 1-888-787-2880 (*for participants recruited through the University of Lethbridge SONA system*). If you wish to seek psychological support please contact Crisis Services Canada, a 24/7 hotline, at 1-833-456-4566 (*for all participants, particularly those recruited through social media and snowball sampling).* Thank you again for participating.

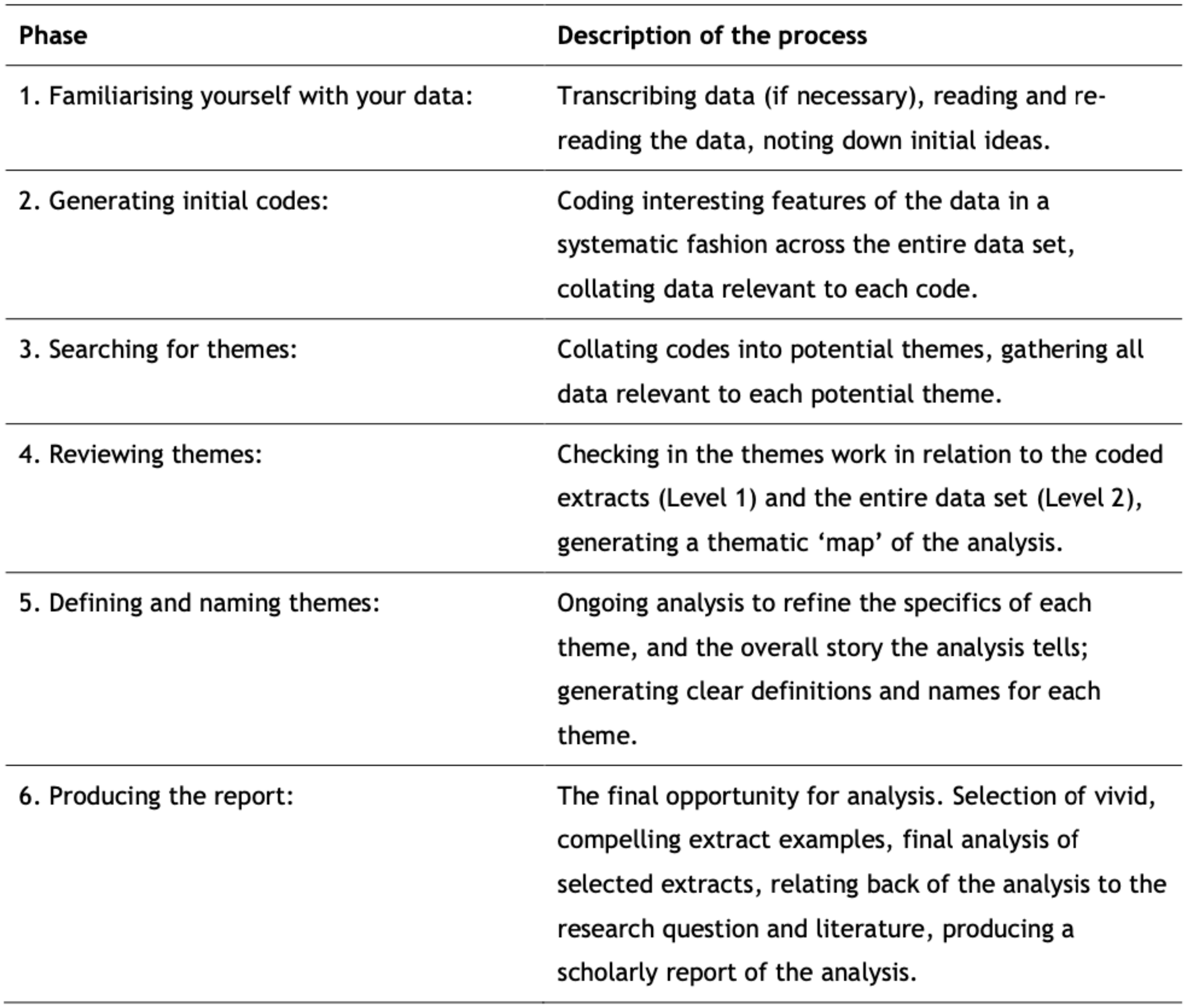
Additional Readings/Information:

Covarrubias, R., & Fryberg, S. A. (2015). Movin' on up (to college): First- generation college students' experiences with family achievement guilt. *Cultural Diversity and Ethnic Minority Psychology, 21*(3), 420–429. https://doi.org/10.1037/a0037844

Covarrubias, R., Landa, I., & Gallimore, R. (2020). Developing a family achievement guilt scale grounded in first-generation college student voices. *Personality and Social Psychology Bulletin*, 46, 1–14. https:// doi.org/10.1177/0146167220908382

Covarrubias, R., Romero, A., & Trivelli, M. (2015). Family achievement guilt and mental well-being of college students. *Journal of Child and Family Studies*, 24(7), 2031–2037. https://doi.org/10.1007/s10826-014- 0003-8

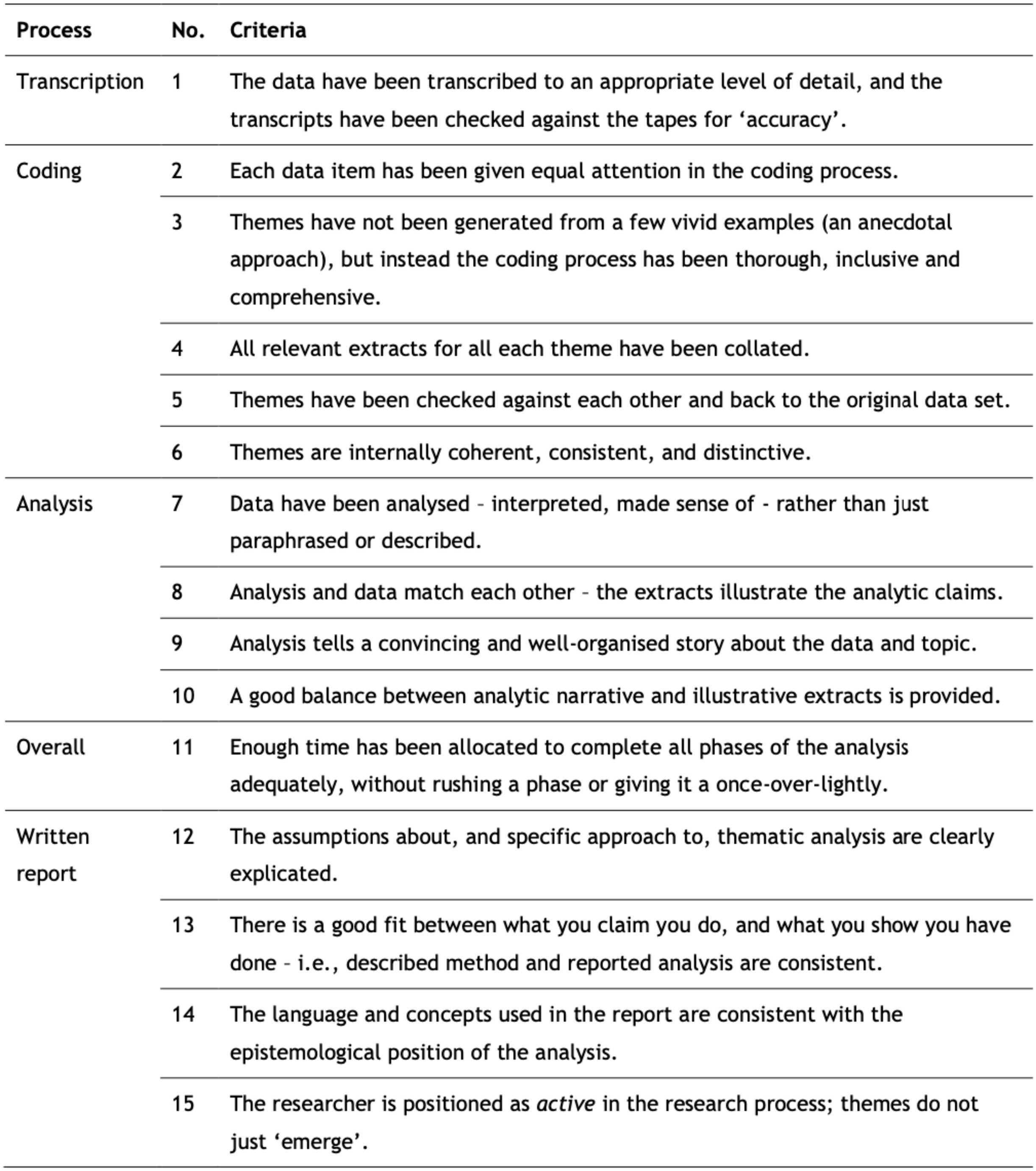
Appendix J: Six Phases of Thematic Analysis



Phase	Description of the process
1. Familiarising yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

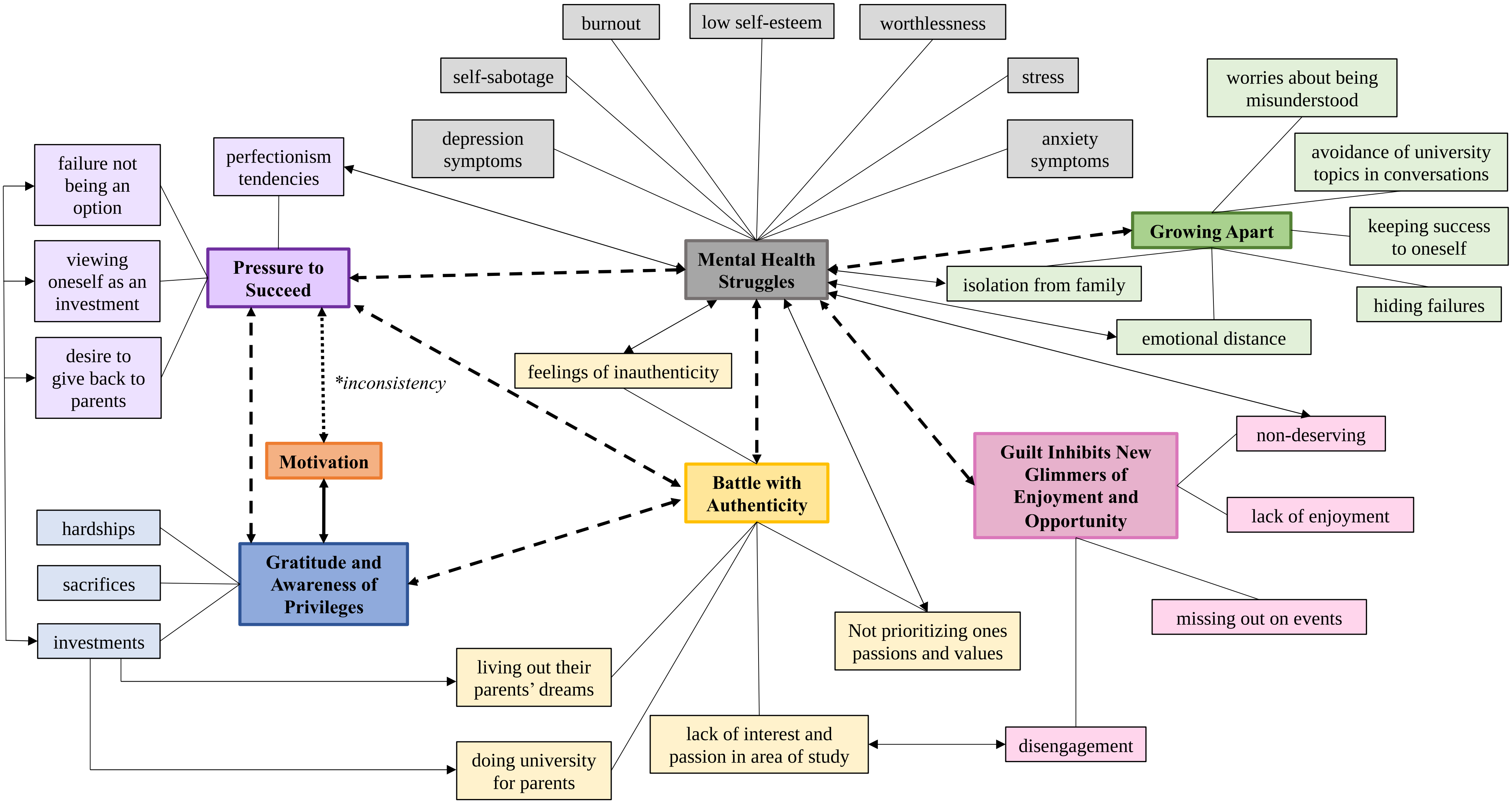
Appendix K: 15-Point Checklist of Criteria for Good Thematic Analysis



Process	No.	Criteria
Transcription	1	The data have been transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for ‘accuracy’.
Coding	2	Each data item has been given equal attention in the coding process.
	3	Themes have not been generated from a few vivid examples (an anecdotal approach), but instead the coding process has been thorough, inclusive and comprehensive.
	4	All relevant extracts for all each theme have been collated.
	5	Themes have been checked against each other and back to the original data set.
	6	Themes are internally coherent, consistent, and distinctive.
Analysis	7	Data have been analysed – interpreted, made sense of - rather than just paraphrased or described.
	8	Analysis and data match each other – the extracts illustrate the analytic claims.
	9	Analysis tells a convincing and well-organised story about the data and topic.
	10	A good balance between analytic narrative and illustrative extracts is provided.
Overall	11	Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly.
Written report	12	The assumptions about, and specific approach to, thematic analysis are clearly explicated.
	13	There is a good fit between what you claim you do, and what you show you have done – i.e., described method and reported analysis are consistent.
	14	The language and concepts used in the report are consistent with the epistemological position of the analysis.
	15	The researcher is positioned as *active* in the research process; themes do not just ‘emerge’.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Appendix L: Thematic Map of the Seven Themes


burnout
low self-esteem
worthlessness
self-sabotage
stress
depression symptoms
anxiety symptoms
worries about being misunderstood
avoidance of university topics in conversations
failure not being an option
perfectionism tendencies
Growing Apart
keeping success to oneself
viewing oneself as an investment
Pressure to Succeed
Mental Health Struggles
isolation from family
hiding failures
emotional distance
desire to give back to parents
feelings of inauthenticity
*inconsistency
non-deserving
Guilt Inhibits New Glimmers of Enjoyment and Opportunity
Motivation
Battle with Authenticity
lack of enjoyment
hardships
Gratitude and Awareness of Privileges
sacrifices
missing out on events
Not prioritizing ones passions and values
investments
living out their parents' dreams
lack of interest and passion in area of study
disengagement
doing university for parents