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ABSTRACT

The present study empirically examines the overarching research question: what is the relationship between delayed gratification, work-life conflict and career burnout in a general adult working population?

A sample of eighty-nine participants completed an online questionnaire. The results suggest a) a statistically nonsignificant relationship between delayed gratification and work-life conflict, b) a very weak, statistically significant, negative relationship between delayed gratification and burnout c) a moderate, statistically significant, positive relationship between work-life conflict and burnout.

Theoretically, this research provides a rationale for delayed gratification based upon Super’s (1990) Life Span, Life Space Theory. In terms of workplace implications, the results highlight the importance of employers understanding work-life conflict and career burnout among their employees. In terms of personal implications, the results capture the significance of engaging in recovery activities to decrease work-life conflict and career burnout. Counselling implications include facilitating client self-understanding of role importance to cope with work-life conflict.
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CHAPTER 1: INTRODUCTION

Is delayed gratification an ability with only positive correlates? Or are there situations where delayed gratification is maladaptive? While there is extensive research which supports the correlation between delayed gratification and adaptive correlates, there is also lesser known research which suggests that delayed gratification is not always adaptive, useful or appropriate. This research will further explore the potential negative impact of delayed gratification in a career context, specifically, its impact on work-life conflict and career burnout. Understanding the relationship between delayed gratification, work-life conflict and career burnout is critical. Perhaps the drawbacks of delayed gratification need to be reconsidered, and its potential for negative impact on work-life conflict and career burnout highlighted. Ideally, this research could help explain the drawbacks of delayed gratification and why individuals continue to have work-life conflict and burnout even though they would like balance.

Key Terms

*Delayed gratification* involves the postponement of immediate gratification for long term rewards (Mischel, 1961). Delayed gratification is often grouped together with other terms such as self-discipline, self-regulation and ego control (Duckworth, 2011). However, the underlying concept of all these varied nomenclatures is self-control, which is the effortful regulation of the self by the self and includes the ability to regulate behavioural, emotional and attentional impulses (Duckworth, 2011). Mischel (1961) first argued that delayed gratification is an ability with only positive correlates. However, Funder and Block (1989) critique this view of delayed gratification and instead argue for a more balanced understanding, which has both adaptive and maladaptive correlates. Adaptively, there is a general consensus among researchers that delayed gratification is correlated to adaptive outcomes in structured situations, such as work and school. However, maladaptively, research also suggests that delayed gratification is correlated with lower levels of joy, a flatter emotional life, a lack of spontaneity, excessive inhibition, decreased creativity, expressive suppression, decreased physical health, mental health difficulties, the tyranny of “shoulds” and an inability to find life satisfying without a continuous sense of purpose and effort.

For the purpose of this study, *work-life conflict*, is defined as “a form of inter-role conflict in which the role pressures from the work and life domains are mutually incompatible in some respect” (Greenhaus & Beutell, 1985, p. 77). Unlike, the more common concept, work-family conflict, which typically denotes family as a structure with a child and/or spouse, the term
work-life conflict encompasses work and family as well as other areas of life, which may include but are not limited to personal interests, leisure activities and socialization that is unrelated to family. In this study, the term work-life conflict is preferred, as it is more inclusive of individuals who do not live within a family structure that involves a spouse or children. According to past research, work-life conflict is experienced by many and is related to several negative outcomes for the individual experiencing the conflict. For example, individuals who experience work-life conflict are more likely to have lower job and life satisfaction (Kossek & Ozeki, 1998), poorer physical and mental health (Frone, Russell, & Barnes, 1996) and negative work outcomes such as decreased productivity, absenteeism, and employee turnover (Higgins, Duxbury, & Irving, 1992).

Career burnout is a work-related state of ill-being, characterized by a three-dimensional syndrome of exhaustion, cynicism, and reduced professional efficacy of one’s ability to perform (Maslach, Jackson, & Leiter, 1996). Career burnout is correlated to many physical, psychological and work-related outcomes. Physically, it is correlated to cardiovascular disease, dysregulation of the neuroendocrine system, changes in brain structure, low levels of daily energy, gastrointestinal issues, respiratory problems, musculoskeletal pain, mortality below the age of forty-five and participation in unhealthy behaviours such as consuming an unhealthy diet, sedentarism and increased alcohol consumption. Psychologically, career burnout is correlated to sleep difficulties, depression, psychotropic medication usage, hospitalization for mental disorders, psychological ill-health, decreased cognitive functioning, and emotion dysregulation. In terms of work-related difficulties career burnout is correlated with job dissatisfaction, disengagement, absenteeism, presenteeism, new disability pension, perception of high job demands, underutilization of job resources, diminished work performance and work-life conflict (Bakker & Costa, 2014; Salvagioni et al., 2017).

Research Questions

The overall objective of this thesis is to empirically investigate the relationship between delayed gratification, work-life conflict and career burnout in a general adult working population. More specifically the main research questions of this research are as follows:

1) What is the relationship between delayed gratification and work-life conflict?
2) What is the relationship between delayed gratification and career burnout?
3) Is career burnout negatively correlated to work-life balance and positively related to work-life conflict? The goal of this hypothesis is to replicate past study findings.
Hypotheses

Below is a breakdown of the operational hypotheses that will be tested to answer the three main research questions.

Hypotheses Related to Research Question 1: What is the relationship between delayed gratification and work-life conflict?

1. The first hypothesis for this study is a positive correlation between delayed gratification (total scale score and the achievement subscale) and work-life conflict.
2. The second hypothesis for this study is a negative correlation between delayed gratification (total scale score and the achievement subscale) and work-life balance.

Hypotheses Related to Research Question 2: What is the relationship between delayed gratification and career burnout?

3. The third hypothesis for this study is a positive correlation between delayed gratification (total scale score and the achievement subscale) and career burnout (total scale score and personal/work related subscales).

Hypotheses Related to Research Question 3: Is career burnout negatively correlated to work-life balance and positively related to work-life conflict?

4. The fourth hypothesis for this study is a positive correlation between work-life conflict and career burnout (total scale score and personal/work related subscales). The goal of this hypothesis is to replicate past study findings.
5. The fifth hypothesis for this study is a negative correlation between work-life balance and career burnout (total scale score and personal/work related subscales). The goal of this hypothesis is to replicate past study findings.

Conceptually, it is predicted that those who score high on the delayed gratification scale will have higher levels of work-life conflict. It is theorized that these individuals will be more likely to delay gratification in their personal life by sacrificing, or delaying personal gratification, to invest additional time in their career. For instance, an individual may sacrifice or delay, personal gratification such as spending time with their family, learning a new hobby, or planning to have a child to focus on their career, a daunting work project, or a promotion. It is hypothesized that individuals may prioritize work over life gratification because they value and identify with their work role more than their life role. This increased time, value and identification with work is hypothesized to contribute to work-life conflict, as work and life become imbalanced. Career burnout is then predicted to occur when work-life conflict is
maintained for extended periods of time. This cycle may continuously repeat as individuals strive for further goals and success. Goal attainment may create a subsequently increasing goal and only a brief sense of gratification or no gratification at all.

Figure 1. Hypotheses model. This figure illustrates the conceptual and operational hypotheses model.

Importance

Shanafelt’s (2005, 2008) research has touched upon these research questions and has indirectly begun to explore the interconnection between delayed gratification, work-life conflict and career burnout in a population of medical oncology students. Shanafelt (2005; 2008) research indicates that 50% of student participants training in medical oncology developed a ‘survival’ strategy where personal time was sacrificed to devote nearly exclusive concentration on school and residency. To cope with this stress from intense dedication to training, students believed that “things would get better in the future”. In other words, the medical students delayed their current personal gratification, concentrating mostly on school with little focus on personal life and coped with the lack of balance by believing they would have more personal time and better work-life balance in the future when they finished medical school and residency. Unsurprisingly, this strategy and coping style contributes to a loss of balance between school and personal life and when maintained for extended periods of time can contribute to burnout.
Unfortunately, Shanafelt’s (2005; 2008) research also suggests that the belief that *things will get better* after residency, which rationalizes and reinforces delayed gratification, is a fallacy. Shanafelt’s (2005; 2008) research indicates that work-life balance does not “get better” after residency and once developed many physicians maintain strategies of delayed gratification after residency and throughout their entire career. In Shanafelt’s study practicing oncologists rated their current stress similarly to that experienced in medical school and residency. This suggests that physicians’ levels of stress does not decrease after residency, and rather than prioritizing their personal life, as they had planned, they continue to delay personal gratification further into the future, believing that *things will get better in the future* such as after they establish their practice, or after they become a professor. Sadly, Shanafelt’s research suggests that many practicing physicians do not believe they can have both a fulfilling career and personal life and so they delay their personal gratification until retirement and believe *things will get better* then. In fact, 37% of practicing oncologist report “looking forward to retirement” as an essential “wellness promotion strategy” (Balch, Freischlag, Shanafelt, 2009). Cumulatively, Shanafelt’s research indirectly suggests that delayed gratification contributes to a loss of work-life balance and career burnout and that the belief that *things will get better* after medical school is a myth, as many physicians maintain strategies of delayed gratification throughout their entire career.

Shanafelt’s (2005; 2008) article provides empirical data that medical students utilize the belief that *things will get better in the future* to cope with stress and how this cognitive belief theoretically contributes to student-life conflict and burnout. However, the construct delayed gratification is not directly measured and there is no direct empirical evidence to support the relationship between delayed gratification, work-life conflict and burnout. Thus, expanding upon this literature, this thesis will empirically investigate the relationship between delayed gratification, work-life conflict and career burnout. Furthermore, this research will originally explore if this relationship exists in a general population of working professionals, rather than a sample of medical oncology residents.

The relationship between delayed gratification, work-life conflict and career burnout has not been previously empirically examined in a general working population. Theoretically, this research is important. The positive correlates of delayed gratification have been disseminated widely and have been received favorably by many scholars, employers, teachers, parents and ingrained intrinsically by many. However, research which suggests negative correlates of
delayed gratification are less known, unaccepted and even adamantly rejected by some who champion for self-discipline (Kohn, 2008; Peterson & Seligman, 2004). In terms of social implications, this research may encourage a critical analysis of unexamined societal beliefs about delayed gratification and highlight to society a more balanced view of delayed gratification, which includes both positive and negative outcomes. Individually, this research may also encourage individuals to critically analyze their own beliefs about delayed gratification and flexibly decide whether to delay or not delay gratification depending upon circumstances, personal values and individual definitions of success and gratification. This research is likely to have a positive impact on career interventions. Ideally, this research could help explain the drawbacks of delayed gratification and why individuals continue to have work-life conflict even though they would like balance. This research is likely to have practical implications for career interventions, as the results may encourage practitioners to assist clients in analyzing unexamined beliefs about self-control and understanding that delayed gratification may be contributing to work-life conflict and career burnout. This research may also provide direction for future interventions to decrease these consequences. Pedagogical implications may include a new view of delayed gratification which is situationally, rather than universally, determined as positive or negative. Overall, understanding the relationships between these variables is critical. Perhaps the drawbacks of delayed gratification need to be reconsidered, and its potential for negative impact on work-life conflict and career burnout highlighted.

Overview of Thesis Chapters

After this introduction, Chapter 2, Literature Review, will provide a theoretical context, which includes an overview of the key terms from Donald Super’s (1990) Life Span, Life-Space Theory, Brown’s (1995) Values-based approach to facilitating career transitions, Dawis and Lofquist’s (1984) Work Adjustment Theory, and Parson’s (1909) Trait and Factor Theory. An overview of the existing literature related to delayed gratification, work-life conflict and career burnout will also be provided. Subsequently, Chapter 3, Methodology, outlines the present study’s quantitative approach. Specifically, it outlines participant characteristics, the measures used, and the procedures employed. Chapter 4, Results, outlines key findings identified during data analysis. Chapter 5, Discussion, draws interpretations from the results discussed in the previous section and describes the significance of the findings in relation to past research. The discussion chapter also includes theoretical and practical implications, limitations, and future directions.
CHAPTER 2: LITERATURE REVIEW

This chapter will provide a theoretical context as well as an overview of the existing literature related to delayed gratification, work-life conflict and career burnout. The first section, theoretical context, will outline key concepts from relevant theories to provide a framework for the hypotheses. The next section, delayed gratification, outlines past research that suggests positive correlates of delayed gratification as well as contrarian research which suggests that delayed gratification is not always adaptive. The second section, work-life conflict, will describe literature related to the theory, antecedents and the outcomes of work-life conflict. The last section, career burnout, will focus on outlining past research related to its antecedents and its physical, psychological and work-related outcomes. Again, it is hypothesized that those who score higher on the delayed gratification scale will have higher levels of work-life conflict and career burnout; as it is theorized that these individuals will be more likely to delay gratification in their personal life to invest additional time in their work life. This behaviour is predicted to contribute to work-life conflict and when maintained for extended periods of time, career burnout. The goal of providing an overview of the existing literature is to offer context, a rationale and to highlight the importance of researching the hypothesized interconnection between delayed gratification, work-life conflict and career burnout.

Theoretical Context

For the purpose of this thesis, concepts will be used from Super’s (1990) Life Span, Life Space Theory, Brown’s (1995) Values-based approach to facilitating career transitions, Dawis and Lofquist’s (1984) Work Adjustment Theory, and Parson’s (1909) Trait and Factor Theory. The key concepts from these theories: self-concept, life roles, role salience and values provide a theoretical context to understand why an individual may delay or not delay gratification and whether they experience work-life conflict and career burnout (Slan-Jerusalim & Chen, 2009).

Self-concept. The term self-concept is important for understanding how individuals view themselves and their roles as a worker and leisureite. Developing and implementing a self-concept and sense of self is core to Super’s career development theory (Super, 1953). Self-concept refers to how an individual subjectively perceives themselves. This includes how one views his/her combination of biological characteristics, life roles, values, interests, personality, skills and one’s evaluation of social feedback from others (Sharf, 2016; Super, 1953). Super (1963) suggests that an individual has a self-concept for each of their life roles. A self-concept begins to develop by exploring interests and activities as well as observing others and comparing
how one is similar or different. By late childhood to early adolescence a sense of self is likely to emerge; however, this is likely to change as an individual continues to develop over the lifespan (Sharf, 2016). Super’s Career Development Assessment and Counselling Model aims to a) help individuals gain self-knowledge and self-acceptance b) develop a holistic and integrated understanding of self and one’s multiple life roles c) encourage career decisions and action plans that integrate one’s self-concept into career success and satisfaction (Super, Osborne, Walsh, Brown, Niles, 1992). Life roles, role salience, and role interactions contribute to one’s self-concept. Below is a description of these key terms.

**Life roles.** Super (1990) argues that there are six major roles that an individual can occupy throughout the lifespan. These life roles contribute to the development of self-concept. Below is a description of each.

1. Child: involves being a child.
2. Student: includes time spent in education and includes activities such as going to school or taking continued education on a full or part-time basis for enjoyment or professional development. An individual may occupy the role of student at various points throughout the lifespan.
3. Worker: includes time spent working for pay. As a child this may include completing household chores, babysitting, or shoveling snow. As an adult this typically involves a job. By retirement an individual may reduce the number of hours they work.
4. Citizen: includes time spent in community service.
5. Homemaker: includes time spent on responsibilities related to home and family. This role varies by age, as a child this may include household chores and babysitting and as an adult this may include caring for children, caring for aging parents or time spent on household chores.
6. Leisurite: includes time spent in leisure activities.

**Role salience.** Key to Super’s (1990) theory is role salience, which is the degree of importance an individual assigns to each of the six life roles. According to Super (1990), role salience varies throughout the lifespan, as an individual may value roles differently depending upon their age. Indicators of role salience include a) participation, which involves spending time on a task in a role, b) commitment, which involves being dedicated to a role in the present and future, c) knowledge, which involves gaining information about a role through observation or experience and d) values expectations, which involves the degree to which an individual
personally values a role or activity within a role. Life values are core beliefs about what an individual deems personally important, whereas, career values refer to the characteristics of a career that an individual deems most important.

Brown’s (1995) value-based approach builds on Super’s (1990) theory on role salience and provides additional information to assist individuals in identifying their role salience and value expectations of roles. Brown’s approach emphasizes the importance of identifying, clarifying and prioritizing life and career values and then utilizing this information to explore role satisfaction and role interactions.

The first goal of Brown’s theory is crystallization (Brown, 1995). Crystallization involves identifying and clarifying personally important values. Values can be crystallized through the following projective and quantitative methods:

1. Reflecting on the characteristics of individuals that one admires and dislikes, indirectly provides clues about personal values (Brown & Brooks, 1991).
2. Exploring leisure activities and spending habits along with the emotions these activities produce. Valued activities generate positive emotions and unvalued activities generate neutral or negative emotions (Brown & Brooks, 1991).
3. Analyzing daydreams can provide insight into the values that underlie them (Holland, 1992).
4. Identifying peak and worst life experiences. Peak experiences provide the greatest amount of joy and usually occur when our most highly prioritized values are met. Whereas, worst life experiences produce intense negative emotions and may reflect instances when our highest values are extremely unsatisfied (Brown & Brooks, 1991).
5. Completing unfinished sentence exercises may provide insightful answers regarding underling values such as I am happiest when I … (Brown & Brooks, 1991).
7. The Salience Inventory (Nevill & Super, 1986): assesses the importance of the following values: ability utilization, achievement, aesthetics, altruism, autonomy, creativity, economic reward, lifestyle, physical activity, prestige, risk, social interaction, variety and working conditions.
8. The Values Scale (Super & Nevill, 1989): assesses the Salience Scale as well as authority, personal development, social relations, cultural identity, physical prowess and economic security.

9. The Life Values Inventory (Crace & Brown, 1992)

10. Value Scale (Rokeach, 1973)

According to Brown (1995) after values have been crystallized the next goal is prioritization. Prioritization involves determining the salience or importance of life roles. Prioritization can be achieved by categorizing values by life role and then ranking the values by importance within each role (Brown, 1995). Prioritization can also be accomplished through a) analyzing two conflicting paths and determine which is more important and examining the underlying value of that path, for example, what is more important salary or work-life balance? b) automatically answering open-ended questions, for example, would you rather have work-life balance or a million dollars? c) examining current activities such as favourite subjects and leisure activities and examining associated values (Brown, 1995). Overall, identifying, clarifying and prioritizing life roles and role salience are central for developing and integrating one’s sense of self and self-concept. These terms will provide context for understanding delayed gratification, work-life balance and career burnout.

**Career salience and career satisfaction.** Once career role salience has been identified, crystallized and prioritized, career satisfaction can be explored. Career satisfaction occurs when there is a fit between one’s values, and the extent a work environment meets these values (Eggerth, 2008; Swanson & Schneider, 2013). When an individual’s career values are met in their career, they are likely to feel career satisfaction, fulfillment and a sense of authenticity. Whereas, career dissatisfaction often occurs when there is a) interrole conflict, where an individual’s career conflicts with another life role, such as work-life conflict (Brown, 1995) or b) intrarole conflict, where an individual’s values conflict with the workplace environment. Thus, an individual feels dissatisfaction because their career is not satisfying their values (Brown, 1995). When an individual experiences intrarole or interrole conflict they are likely to feel dissatisfied, unfulfilled and inauthentic (Brown, 1995). This may occur if an individual pursues career values that have been imposed by others or oneself (Luken & de Folter, 2019). Often, living according to imposed values leads to inflexibility and reduced psychological health (Luken & de Folter, 2019). When an individual experiences career dissatisfaction they may respond with a) flexibility, where they tolerate that their values are not being met in their career
b) active adjustment, where they seek another career due to an inability to accept their values being unmet in their career c) reactive adjustment, where one changes their values in reaction to having their values unmet in their career or d) perseverance, which describes the amount of time an individual can tolerate their values being unmet before they engage in active adjustment or reactive adjustment (Juntunen & Even, 2012; Swanson & Schneider, 2013). Overall, individuals experience dissatisfaction in their career if their career conflicts with other salient life roles or their career conflicts with their values, when this occurs individuals will either tolerate their job, seek another job or change their values.

**Self-concept and delayed gratification.** A career self-concept refers to an individual’s career self-identity (Super, 1990). Chen (2017) argues that individuals develop and express their career self-concept through their work roles, career aspirations and career related behaviours.

Based on Super’s (1990) theory, delayed gratification may be an expression of the interaction between one’s career self-concept and career values, or more generally, a reflection of how an individual’s self-concept and life values function in a vocational context. Values influence the importance one places on life roles. Values also guide behaviours within and between roles and may impact an individual’s decision to delay or not delay gratification. When an individual highly values and derives their self-identity and self-worth from a role, they will be more likely to participate and invest in that role, which will lead to a delay of gratification and a delay of time and energy being available for other roles (Greenhaus & Beutell, 1985; Slan-Jerusalem, & Chen, 2009). This behaviour may lead to success in the highly valued role at the expense of success in other life roles. For instance, if an individual highly values work and derives much of their self-identity and self-worth from achievement in work, the more likely they will be to invest in their work role, and to delay gratification and delay participation in other roles such as family and leisure. Adaptatively, this may lead to high success in their work, but maladaptively, contribute to lower success in other life roles. Key to personally determining if delayed gratification is adaptive or maladaptive is having a self-understanding about whether delayed gratification allows for alignment with one’s goals, interests and more importantly values. If delayed gratification is in alignment with one’s values than delayed gratification is likely to be adaptive, but, if it does not align with one’s values than it is likely to be maladaptive.

Individuals tend to pursue work roles which fit their self-concept and career self-concept (Chen, 2017). However, external influences such as social, occupational, cultural and societal messages may influence and alter an individual’s self-concept and role salience and thus
indirectly impact career behaviours, career decision making and career choice. More specifically, (Giannantonio, & Hurley-Hanson, 2006; Super, 1990) argue that an individual’s self-concept may develop from influences from family, friends, teachers, peers, workplace norms, cultural messages and societal messages from social media and other media such as television and magazines. Based on this an individual’s decision to engage in delayed gratification may indirectly be impacted by external influences.

Socially, if an individual’s family, friends and peers highly value work achievement, an individual may internalize this message and be more likely to invest in their work role and more likely to delay gratification in their other roles. Culturally, an individual’s background may have clearly defined work roles and expectations. For example, in collectivist cultures, personal career satisfaction may be based highly on career approval from significant others (Slan-Jerusalim, and Chen, 2009). Thus, if significant others highly endorse delayed gratification, an individual from a collectivist culture may be also more likely to engage in delayed gratification behaviours.

Societal messages also influence one’s self-concept. For instance, a society may have more of a long term or short-term orientation, which is the “extent to which society socializes its members to accept delayed gratification of their social, emotional and material needs” (Hofstede, 2001, p. 29). In many societies, self-control and participation and over participation in work roles are glorified, and in fact Porters (2004) indicates that "society supports workaholism, as it does no other addiction” (p. 436). Together these examples highlight the extent external messages may impact one’s self-concept, role salience, and indirectly one’s decision to delay or not delay gratification.

Parallel to Super, Work Adjustment Theory (Dawis and Lofquist, 1984) and Trait and Factor Theory (Parson, 1909) also argue that career satisfaction and fulfillment develop from one’s self-concept aligning with their work environment. To identify if a career is aligned with one’s self-concept an individual must first develop a strong internal sense of self, which incorporates role salience, interests, values, personality, skills and their definition of career and life success (Super, 1990). Super, (1990) argues that it is also important for an individual to have an awareness of external messages that may conflict with one’s sense of self and values. For instance, to determine if delayed gratification is adaptive or maladaptive, one needs to be able to differentiate if delayed gratification aligns with their self-concept and role salience or if delayed gratification aligns with values from external influences. Individuals performing according to the
latter may experience maladaptive consequences and may benefit from challenging external messages that do not align with their self-concept.

Overall, based on Super’s (1990) theory, Work Adjustment Theory (Dawis and Lofquist, 1984) and Trait and Factor Theory (Parson, 1909) delayed gratification may be a reflection of an individual’s career self-concept. When an individual gains self-worth from their work, they will be more likely to delay gratification in other roles to invest in their career. This may contribute to success in one’s career at the expense of success in other roles.

**Self-concept and work-life conflict.** Interactions between or within roles may function in synergy, in conflict or may be compensatory (Brown, 1995; Super, 1990). To identify how roles interact, one must first list all occupied roles, the amount of time that is spent in each role per month and the values that are fulfilled by participating in each role. Once this is complete roles can be examined for synergy, conflict or compensation (Brown, 1995).

1. **Synergistic roles:** role synergy occurs when participation in separate roles enhance each other. Synergy may also occur when fulfillment of a value within a role enhances other values within that role.

2. **Conflicting roles:** interrole conflict occurs when one valued role reduces the amount of time one would like to spend in another valued role. Intrarole conflict occurs when a value within a role reduces the extent another value within the same role can be met.

3. **Compensatory roles:** role compensation occurs when one role produces satisfaction that compensates for dissatisfaction in another role. Or when one value within a role produces satisfaction that compensates for dissatisfaction with another value within that role.

Super’s (1990) life span theory, specifically, the key concepts of life roles and role salience can help theoretically explain why an individual may experience work-life balance (synergy) or work-life conflict (conflicting roles). An individual’s values contribute to how salient a role is to them and how they manage competing roles. If one life role is highly valued and salient to an individual’s self-concept compared to other life roles, the individual will likely prioritize their time and energy to this role and feel satisfied with how time is distributed and balanced between the roles, in other words, they will experience work-life balance. For instance, if an individual highly values work achievement and work is salient to their self-concept, compared to the role of leisurite, they would be more likely to prioritize their time and energy
into work than leisure and they would be likely to experience satisfaction with their distribution of time between work and leisure, or work-life balance. However, if more than one role is highly valued and salient to an individual’s self-concept, then the individual will be more likely to have difficulties prioritizing their time and energy between the roles and may be at risk of feeling unsatisfied with how time is distributed and balanced between roles, in other words, work-life conflict. For instance, if an individual highly values both work achievement and staying home with children, and both of these roles are salient to their self-concept, they would be more likely to have difficulties prioritizing their time and energy between work and family and be more likely to feel unsatisfied with how time is distributed and balanced between work and family and experience work-life conflict. Overall, developing a sense of work-life balance and satisfaction with roles, involves ensuring valued roles are met.

**Delayed Gratification**

The first research related to delayed gratification was investigated by Mischel’s (1961) marshmallow experiment. In this study children aged six and a half to eight and a half were presented with one marshmallow and were told that they could have a second marshmallow if they waited to consume the first until the researcher returned. The researcher then left the room for fifteen minutes. If the child did not consume the first marshmallow upon the researchers return, they were rewarded with a second marshmallow. If the child consumed the first marshmallow before the researcher returned, they were not rewarded with a second. This research tested the children’s ability to delay gratification. Ten years later the researchers conducted a follow up study and had the parents, of the now adolescent children, complete questionnaires about their child. Unexpectedly, the results of the follow up study revealed a positive correlation between the children’s ability to delay gratification and their later academic achievement, SAT scores, high school and college completion rate, income, saving behaviours, financial security, occupational status, sense of self-worthiness, ability to cope with stress, physical and mental health as well as a negative correlation between delayed gratification and behavioural problems, adolescent pregnancy, substance abuse and criminal convictions (Duckworth & Carlson, 2013; Mischel, Ebbesen, Zeiss, 1972; Mischel, Shoda & Peake, 1988; Moffitt et al., 2011). This research has led to a dominant view of delayed gratification as an ability with only positive correlates.

Funder and Block (1989) have critiqued Mischel’s entirely positive view of delayed gratification and instead argue for a more balanced understanding of delayed gratification with
both positive and negative correlates. Funder and Block (1989) used multiple studies to conceptualize the behaviour of delaying or not delaying gratification as a component of the construct ego control, which is defined as an “…individual's generalized disposition or capacity to modulate and contain impulses, feelings, and desires; to inhibit action; and to be insulated from environmental distractors (Block, 1950; Block, 1951; Block & Block, 1980; Funder, Block, & Block, 1983, Funder & Block, 1989)” (as cited in Funder & Block, 1989, p. 1041).

Ego control ranges on a continuum from ego undercontrol to ego overcontrol (Block & Block, 1980; Block 2002). Those with an extreme generalized disposition toward undercontrol tend to automatically release their inhibitions and seize immediate gratification such as pleasure and rewards; express their impulses, feelings and desires and are susceptible to environmental distractors (Block, 2002; Funder & Block 1989). Individuals described as undercontrolled are viewed characteristically across situations as impulsive in their actions and affect-expressiveness; they are also seen as relatively unable to delay gratification and as easily distracted even when this behaviour may be inappropriate, socially uncouth and at the expense of long-term gains (Block, 2002; Funder & Block 1989). On the other end of the continuum, those with an extreme generalized disposition toward overcontrol tend to automatically delay or even abstain from gratification such as pleasure and rewards; inhibit impulses, actions, feelings and desires and are relatively unaffected by environmental distractors (Block, 2002; Funder & Block 1989). Individuals described as overcontrolled are viewed characteristically across situations as excessively constrained in their behaviour and emotional expressiveness even in situations where delaying gratification may be maladaptive, or even unnecessary such as at times when an associated gratification does not require a delay (Block, 2002; Funder & Block 1989). In general, Funder and Block view delayed gratification as a component of ego control, which ranges on a continuum from ego undercontrol to overcontrol.

In comparison, Mischel views delayed gratification as a skill “one cannot have too much of” (as cited in Funder & Block, 1989, p. 1042), as he interprets self-control as being associated with only positive outcomes and a lack of self-control with only negative outcomes. Whereas, Block (2002) view delayed gratification as a part of a disposition, which can have either positive or negative consequences depending upon the situation. In other words, in comparison to Mischel, Block argues that self-control is not always positive, a lack of self-control is not always negative and that an extreme disposition on either end of the continuum is correlated with both adaptive and maladaptive outcomes depending upon the situation (Block 2002; Kohn, 2008).
Below will review the lesser known research which has examined the positive and negative correlates of delayed gratification and instant gratification and the situations in which they are adaptive or maladaptive.

**Instant gratification: adaptive and maladaptive correlates.** Funder and Block (1989) argue that instant gratification can contribute to adaptive or maladaptive consequences depending upon the situation. Firstly, instant gratification may be maladaptive in situations where structure is traditionally desirable, such as school or work. In these situations, instant gratification may be associated with negative outcomes such as erratic, impulsive, unorganized, distracted and dangerous behaviours (Block, 2002). However, the same instant gratification behaviour may be adaptive in situations where spontaneity is desirable such as social situations and leisure. In such situations, instant gratification facilitates the expression of interpersonal warmth, friendliness, and spontaneity, which are likely to be advantageous in promoting intimacy and the enjoyment of life (Block, 2002). Additionally, these individuals may be more flexible, open to new experiences and creative (Block, 2002; Shapiro, 1967). Overall, Funders research suggests that instant gratification is maladaptive in structured situations and adaptive in unstructured situations.

**Delayed gratification: adaptive correlates.** In the literature there is a general consensus among researchers that delayed gratification is correlated to adaptive outcomes in structured situations, such as work and school. These situations prescribe for delayed gratification and behaviours which facilitate self-discipline (Funder & Block, 1989). Generally, individuals who often delay gratification tend to be intelligent and, in some ways, well-adjusted. As indicated already, delayed gratification is correlated with a range of positive outcomes such as later academic achievement, SAT scores, high school and college completion rate, income, saving behaviours, financial security, occupational status, sense of self-worthiness, ability to cope with stress, physical and mental health as well as a negative correlation between delayed gratification and behavioural problems, adolescent pregnancy, substance abuse and criminal convictions (Duckworth & Carlson, 2013; Mischel, Ebbesen, Zeiss, 1972; Mischel, Shoda & Peake, 1988; Moffitt, Arseneault, Belsky, Dickson, Hancox, Harrington, ... & Sears, 2011).

**Delayed gratification: maladaptive correlates.** Despite the extensive research, which outlines the positive correlates of delayed gratification, there is literature, which suggests that delayed gratification is not always correlated to positive outcomes. The below contrarian research which suggests that delayed gratification is not always adaptive, useful or appropriate is
less known, rather controversial and even rejected by some (Peterson, & Seligman, 2004; Tangney, Baumeister, & Boone, 2004). The goal of providing the below research is to highlight delayed gratification’s negative correlates and to provide a reasonable foundation for why delayed gratification may have other negative correlates in a career context, such as the concepts of interest for this study, work-life conflict and career burnout.

**Maladaptive outcomes in unstructured situations.** Most poignantly, research suggests that delayed gratification may be maladaptive in unstructured situations, where spontaneity is desirable such as in social circumstances or leisure contexts (Funder & Block, 1989; Kohn, 2008; Letzring et al., 2005; Weinberger & Schwartz, 1990). These situations prescribe for a tendency to obtain gratification which facilitates pleasure. In unstructured situations, delayed gratification is associated with various negative correlates such as a lack of spontaneity, decreased creativity, lower levels of joy, a flatter emotional life and being viewed as excessively inhibited, constrained and conformist (Founder & Block 1989; Block, Gjerde & Block, 1991; Kohn 2008; Zabelina, Robinson, & Anicha, 2007). Overall, this research suggests that delayed gratification is maladaptive in unstructured situations.

**Expressive suppression.** Attempting to self-control and contain one’s desired behaviours may have undesirable consequences. The term *expressive suppression* explains this phenomenon and refers to an individual’s aim to decrease emotional responses and behaviour. This may include decreased engagement with emotions and refraining from sharing or expressing a true emotion (Gross & John, 2003). Research suggests that while emotional suppression is likely to decrease an individual’s expression of negative emotions, it increases their experience of negative emotions and increases obsessive and intrusive thoughts about the emotion or behaviour they are attempting to suppress (Kohn 2008; Polivy, 1998). Furthermore, compared to those who do not suppress their emotions, emotion suppressors are more likely to have lower levels of self-esteem, satisfaction with life and have more depressive symptoms (Gross & John, 2003). More so, attempting to self-control, specifically, to delay gratification may contribute to *disinhibition*, a sudden extreme lack of control or tendency toward impulsivity (Block, 2002). Individuals who are characteristically overcontrolled and most often delay gratification may suddenly find themselves engaging in risky and impulsive behaviours such as binge drinking, drug abuse and unprotected sex (Block, 2002; Kohn, 2008). In sum, self-control, is negatively correlated to an increased experience of suppressed emotions and may cause a sudden extreme lack of control.
End goal learning and the eternal staircase. Self-control and delayed gratification appear to be associated with end goal learning rather than learning that would be considered more meaningful such as deep engagement with material. For example, high delayed gratifiers may be more focused on end goals, such as high grades than deep learning or creativity. While delayed gratification is associated with high grades, grades are subjected to low levels of reliability and are not valid indicators of deep learning (Kohn 1999; Kohn, 2000; Kohn, 2008). Additionally, students preoccupied with attaining high grades are more likely to encode information at a shallow level, retain information for shorter periods of time, be less interested in what they are learning and be less likely to challenge themselves intellectually as they often choose the easiest task when given a choice (Kohn 1999; Kohn, 2000; Kohn, 2008). Research suggests that students with high grades, who may endorse this mindset, are excessively conformist and less creative than students with lower grades (Hogan & Weiss, 1974; Kohn, 2008). Perhaps high grade attainers have learnt to produce work that aligns with teacher expectations and are less motivated to deeply learn and creatively engage with material.

Delayed gratifiers’ desire for end goal attainment may also negatively impact them outside of school. Shapiro (1967) indicates that individuals who often delay gratification “do not feel comfortable with any activity that lacks an aim or a purpose beyond its own pleasure, and usually they do not recognize the possibility of finding life satisfying without a continuous sense of purpose and effort” (p. 44). In comparison, those who delay gratification less often, may have lower grades but be more “playful, flexible, open to new experiences and self-discovery, deriving satisfaction from the process rather than always focusing on the end product (Kohn, 2008, p. 170). Below is an example of how an individual may continually delay gratification to attain goal attainment at the cost of deriving satisfaction from the process of an activity. I need to get good grades in high school to get into college. Then I can relax/be happy…I need to get good grades in college to get a good job. Then I can relax and be happy…. I need to work hard to get a promotion at work. Then I can relax and be happy…. I need to work hard so I can retire. Then I can relax and be happy. This example illustrates how individuals can unknowingly become entrapped in a cycle, where they are hyper-focused on a goal and always waiting for one cycle to finish, so they can begin the next.

Delayed gratifiers may project themselves to the next stage of their life and develop a mindset that they will be happy when they are in the next stage. Additionally, this example highlights how each goal achieved creates a continuous and subsequently increasing goal. Each
goal achieved creates only a brief sense of gratification or worse no gratification at all. Delayed gratifiers may have difficulty feeling gratification or satisfaction after an achievement, as they may focus instead on attaining their next achievement. This mindset creates an *eternal staircase* of delayed gratification. On the eternal staircase of delayed gratification, one is continually climbing but never reaching the top (Shen, 2013). Delayed gratifiers may be going through life and forgetting to mindfully enjoy the present. Kohn (2008) eloquently articulates the emptiness of the eternal staircase of delayed gratification for young students:

So it is for teenagers who have mortgaged their present lives to the future: noses to the grindstone, perseverant to a fault, stressed to the max. High school is just preparation for college, and college consists of collecting credentials for whatever comes next. Nothing has any value, or provides any gratification, in itself. These students may be skilled test-takers and grade grubbers and gratification delayers, but they remind us just how mixed the blessing of self-discipline can be (Kohn, 2008, p. 173).

In general, delayed gratification is related to difficulties deeply learning, enjoying time that is not related to a specific purpose beyond its own pleasure and experiencing a sustained sense of satisfaction from an accomplishment. Overall, delay gratification may enable success in the form of high grades and accolades at the expense of deep learning, creativity and enjoyment of present life.

*Decreased physical health.* Research suggests that for certain individuals delayed gratification and overcontrol have a cost to physical health. Individuals from disadvantaged backgrounds, regarding class, race or geography, had a negative correlation between self-control and physical health outcomes (Miller, Yu, Chen, Brody, 2015). In other words, there was a correlation between high self-control and reduced physical health for those from disadvantaged backgrounds (Miller et al., 2015). Specifically, those from a disadvantaged background who were high in self-control, “went on to experience greater cardiometabolic risk as young adults, as reflected on a composite of obesity, blood pressure, and the stress hormones cortisol, epinephrine, and norepinephrine” (Miller et al., 2015, p. 10325). This suggests that for individuals from a disadvantaged background, as stated by Miller, “there seems to be a cost to self-control and/or to the successes that it enables” (as cited in Hamblin, 2015, para. 9).

Disadvantaged individuals with high self-control seem to employ considerable focus to their academics and work which enables them to have positive outcomes in school and allows for greater professional upward mobility (Miller et al., 2015). Researchers have theorized that
disadvantaged individuals have immense obstacles to overcome to obtain positive academic and professional mobility. These obstacles require immense self-control and delayed gratification. Determined to succeed these individuals are tenacious and hyper focused on their desired pursuits, subsequently neglecting overall well-being such as their social lives, physical activity and nutrition (Miller et al., 2015). These conditions when maintained for extended periods of time create chronic stress, which have long been known to create or perpetuate physical health deterioration and disease. Miller further states “Other work shows the unrelenting effort toward goals has a cost. People who pour their hearts and souls into achieving certain things often do so at some risk to their health” (as cited in Hamblin, 2015, para. 17). Overall for disadvantaged groups this suggests success from self-control and delayed gratification comes at a cost to physical health.

**Mental health difficulties.** Delayed gratification and overcontrol is also associated with negative mental health correlates. Research results indicate a correlation between delayed gratification and psychological difficulties such as anorexia and that it puts young women at risk for developing depression (Block, Gjerde & Block, 1991; Kohn 2008; Weinberger, & Schwartz, 1990; Zabelina, Robinson, & Anicha, 2007).

**The tyranny of “shoulds”**. Research indicates that even internal motivation to delay gratification may create emotional turmoil. Internally, self-controlled individuals may experience a phenomenon Horney (2013) describes as the tyranny of should to delay gratification. Horney (2013) argues that an individual has two views of self: the real self, which contains realistic self-knowledge about personal strengths and weaknesses and the ideal self, which contains unrealistic expectations of who we should, ought, must, or have to be. Thoughts about our ideal self may be positive when they motivate us to reach a desired goal. However, shoulds become what Horney (2013) describes as the tyranny of should when an ideal way of being is connected to rigid and unrealistic self-imposed rules which dictate perceived ideal behaviour. When in this mindset, deviations from idealized behaviours are viewed as undesirable. Consequently, the tyranny of should drives behaviour out of pressure, shame, guilt, obligation and to an extent compulsion. It is as though the individual feels confined by rules from a punitive inner critic or supervisor who demands for perfect behaviour - and so simultaneously the individual “feels driven but never feels like the driver of his life” (Heller, 2015, para. 5).

Individuals high in delayed gratification may be relatively unable to release themselves from their inner shoulds and inhibitions to seize immediate gratification (Funder 1998; Kohn,
Instead they may simply conform to internalized messages of delayed gratification and adhere to societal expectations of self-control. This reduces the capacity for personal agency, individual definitions of success and critical thinking (Koenig, 2015). While parents and teachers may assume an individual has freely decided to delay gratification, it may be more likely that they are unable to release themselves from inner pressure, which would allow them to obtain gratification (Funder, 1998; Kohn, 2008). In other words, individuals may compulsively delay gratification not from a sincere desire to do so but for a desire to stave off anxiety from not doing so (Funder, 1998; Kohn, 2008). Individuals may impulsively internalize and adhere to shoulds to delay gratification to appease parents, teachers or themselves to the point they no longer know the difference between their personal values and goals and the internalized shoulds they feel (Koenig, 2015). For instance, a student who believes they should get all A’s on their report card may feel internal shame every time they do not reach this internalized ideal, whether they truly value high grades or not. Kohn (2008) poignantly explains “Some children who look like every adult’s dream of a dedicated student may in reality be anxious, driven, and motivated by a perpetual need to feel better about themselves, rather than by anything resembling curiosity. In a word, they are workaholics in training” (p. 175).

Underlying the tyranny of should is the core intrinsic belief and feeling that the real self is inherently flawed and should be different or that one should behave in a different manner to be worthy (Koenig, 2010). This creates a lack of self-compassion and acceptance for the real self and its associated weaknesses. An internal dialogue of the underlying belief of the tyranny of should may sound as follows: I am not enough and so I have to act or be a certain way to be enough. This belief can be incredibly damaging to an individual’s self-esteem as it reinforces a cognitive distortion that one must be perfect to be worthy (Koenig, 2015). This creates an unattainable search for perfection and a continual feeling of inadequacy and self-criticism when an individual inevitably fails to meet the demands of their ideal self and who or where they should be. This belief also reinforces a cognitive distortion that behaving perfect or according to one’s shoulds and ideal self will create self-esteem, success or happiness (Koenig, 2015). However, adhering to this belief does not guarantee any of these outcomes.

Moreover, the tyranny of should negatively impacts cognitions, emotions and behaviour. Cognitively, internal pressure from shoulds may create anxiety and worry about acting imperfect or rumination about how one should have acted in the past or should act in the future (Koenig, 2015). Emotionally, an individual may feel a lack of self-agency to function as their real self,
creating a lack of authenticity and joy. Additionally, since an individual will inevitably be unable to meet the demands of shoulds, one may feel guilt, shame, self-hatred, depression and anger (Koenig, 2015). Behaviourally, shoulds may cause procrastination and withdrawal as one may want to avoid behaving in a way that cannot be realistically attained. Shoulds which are supported by external influences may intensify these cognitions, emotions and behaviours (Koenig, 2015). For instance, a parent who believes their child should go to university and should get a good job, a teacher who believes children should have immense self-control and study hard for test, and an employer who believes an employee should produce perfect work may intensify obsessive cognitions of excellence, and pressure or coerce an individual to meet unrealistic demands.

Shoulds supported by societal influences may be utilized to elicit conformity to these messages, whether it is in the best interest of an individual or not. Behaviour that aligns according to educational and career status quo and should messages may produce positive internal feelings such as pride, and may even contribute to feelings of superiority, particularly if the behaviour requires delayed gratification (Koenig, 2015). However, when behaviour does not align with engrained status quo standards, it often creates intentional or unintentional internal shame and guilt, which prompts self-chastising to conform to external messages of desired behaviour to avoid negative feelings (Koenig, 2015).

If our main goal for students is just to get them to complete whatever tasks, and obey whatever rules, they’re given, then self-discipline is undeniably a useful trait. But if we’re interested in the whole child – if, for example, we’d like our students to be psychologically healthy – then it’s not at all clear that self-discipline should enjoy a privileged status compared to other attributes. In some contexts, it may not be desirable at all (Kohn, 2008, p. 169).

All in all, messages of delayed gratification which are supported by societal influences may be used to elicit conformity and adherence to rules rather than bolster well-being.

The societal message that some teachers, parents, employers etc. are endorsing is praise for self-discipline even if it is personally costly and pleasure depleting (Kohn, 2008). This message is further endorsed through programs that have goals to train authorities to self-discipline their children, students, employees, etc. (Kohn, 2008). While instilling self-control in individuals is most optimal and convenient for parents, teachers and employers to create a self-disciplined child, student or employee, it may not be in the individual’s personal best interest.
(Bowles & Gintis, 1976; Gartner, 2001; Kohn, 2008). Perhaps, instead of endorsing and supporting training methods, which facilitate self-discipline and shame those who do not fit this status quo, it may be more beneficial to redirect attention toward examining the educational, occupational, familial and societal structures, which endorse this message (Kohn, 2008). Perhaps this issue is less so about a lack of self-discipline in children and more of an issue with endorsing unexamined status quos and messages.

**Adaptive response variability.** Society tends to favour self-control across all situations and encourages suppression of personal gratification which may distract attention from a goal. However, Block (2002) challenges this ingrained message and instead argues that a balanced approach to delayed gratification, which includes moderation and flexibility, is key to optimal outcomes both academically/professionally and personally. Central to Block (2002) in developing a balanced approach is the skill he termed *adaptive response variability*, which involves the ability to flexibly decide how to react depending on the circumstances (Bock, 2002). More specifically, it includes the capability to decide in a specific situation when it is ideal to delay gratification and practice self-control and when it is advantageous to seek immediate gratification, rather than applying one type of response to every situation (Kohn, 2008).

Determining whether delaying gratification is adaptive or maladaptive, is dependent upon a crystallized self-concept and how expected outcomes may align with one’s sense of self (Slayback, n.d.). Thus, delayed gratification is beneficial when it aligns with an individual’s self-concept, specifically a clearly developed understanding of personal interests, values, goals and definition of gratification. Even proponents of delayed gratification such as Shoda, Mischel and Peake (1990), agree with this and indicate that determining whether delaying gratification is adaptive or not depends on “an individual’s values and expectations with regard to the specific contingencies…In a given situation, therefore, postponing gratification may or may not be a wise or adaptive choice” (p. 985).

Definitions of gratification are individualistic and may include professional, academic or personal goals. Delaying gratification, which allows attainment of one’s definition of success, may be adaptive; however, delaying gratification based on external definitions of success will likely be maladaptive. For example, one’s definition of success may include becoming an academic. For another, it may include becoming an entrepreneur. For the former, the path to success may involve completing a bachelor’s degree, a graduate degree, a fellowship, publishing journals and gaining tenure. For the latter, the path to success could include obtaining a college
or university degree or not, gaining practical experience, obtaining a mentor, making risky decisions and learning from trial and error. However, it would likely be inefficient in terms of time and resources for an individual to knowingly follow a path to success which does not align with their self-concept. Related to the past example, it would be inefficient and likely unbeneﬁcial for someone with a crystallized self-concept and goals that align with entrepreneurship to follow the path of the academic and delay their personal gratiﬁcation through years of school, publishing and gaining tenure and vise versa for the academic (Slayback, n.d.).

Research indicates that delayed gratiﬁcation only increases subjective enjoyment when the desired object or goal aligns with an individual’s intrinsic interests, motivators or rewards. In contrast, when individuals delay gratiﬁcation when the outcomes are extrinsically motivating, they are more likely to experience decreases in enjoyment and increases in agitation (Nowlis, Mandel, & McCabe, 2004). For instance, corporate lawyers may be extrinsically motivated to delay gratiﬁcation and work long hours for years to gain a high salary. However, this may lead to an experience of dissatisfaction and agitation if they are intrinsically motivated to directly help individuals reach their full potential through teaching or counselling. In both examples, delayed gratiﬁcation is not beneﬁcial as it does not align with the individual’s self-concept, values and desired goals. Inefﬁciency, which knowingly does not align with your self-concept values and goals, should not be strived for to appease societal norms – this type of delayed gratiﬁcation should not be praised (Slayback, n.d.). Slayback’s (n.d.) quote articulates this message insightfully: “Locking yourself into commitments that run contrary to or do not help you achieve your idea of gratiﬁcation is not wise, virtuous, or somehow showing merit — it’s self-destructive and self-sacrificing to ideas of happiness and gratiﬁcation that are not your own” (para. 18).

Furthermore, the concern with encouraging delayed gratiﬁcation at young ages is that young individuals do not yet have a crystallized self-concept, values, goals or their deﬁnition of gratiﬁcation and success to determine when to employ adaptive response variability (Slayback, n.d.). Overall, the concept of adaptive response variability is often overshadowed in research by the idea that self-control is universally beneﬁcial.

Overall, while there is extensive research which suggests positive outcomes of delayed gratiﬁcation, there is also extensive but less known research, which suggests both positive and negative outcomes of delayed gratiﬁcation. Building upon this less known research, this thesis predicts that while delayed gratiﬁcation may adaptively contribute to academic or professional success it may maladaptively contribute to negative outcomes such as work-life conflict and
career burnout. It is rationalized that individuals who score high on delayed gratification will be more likely to delay gratification in their personal life to invest additional time in their work life, creating work-life conflict and when maintained for extended periods of time, career burnout.

**Work-Life Conflict**

Many individuals find it increasingly difficult to balance workplace demands with non-workplace related responsibilities and activities. Due to varied definitions, samples and measures of work-life conflict utilized by researchers, there are varied statistics, which represent the percentage of people who experience work-life conflict. For instance, on the low end, Shanafelt et al., (2015) study of 5392 general working, non-physician employees, indicate that 19.8% of participants were dissatisfied with their work-life balance, whereas, the American Psychological Association (2007) reports that about 33% of individuals experience work-life conflict which causes them a significant amount of stress. Other researchers report: 40% of employed parents experience work-life conflict at least some of the time (Galinsky, Bond, & Friedman, 1993), 48.5% of men and 62.2% of women referred to conflict between the work and home life in a sample of 7905 (Dyrbye et al., 2011; Suner-Soler et al., 2014), and 72% of working fathers and 83% of working mothers reported experiencing conflict between their job demands and their desire to spend more time with their families (Galinsky, et al., 1993). Overall, many individuals experience work-life conflict, with statistics ranging from 19.8% to 83% of individuals, depending upon the definition, sample and measure employed by the researcher.

The current nature of many workplaces has played a role in workplace stress as well as work-life conflict. Technological advances with globalization have changed the way employees work. In the past, employees did not have the technological means to complete work-related tasks when they finished their job at the end of the day. However today, due to email, smartphones and the internet an employee can be connected to work at all hours at any place. These technological advances may specifically exacerbate competitive workplace environments and allow individuals to pursue additional productivity from home (Mete, Unal, Bilen, 2014). This increases the spillover of work-related tasks into an individual’s personal life causing more stress and increased work-life conflict.

Changes in society and family structures have also contributed to work-life conflict. Societal norms, family structures and family roles have changed over time such as the increase in dual-career families and an increase of women in the workplace (Nayır, 2008). Traditionally,
women were expected to stay home and care for children. However, since the 1970s women are increasingly joining the workplace. In fact, in 2018, 61.3% of Canadian women over age fifteen participated in the labour force, this is more than double from 1976 (Ferrao, 2010; Statistics Canada, 2019). This current change in the workplace may increase the likelihood that both genders have work and household related demands, which may increase the experience of work-life conflict for both genders (Bond, Galinsky, & Swanberg, 1998; Gilbert, Hallett, & Eldridge, 1994; Martocchio & O’Leary, 1989). The increase of females in the workplace has created changes in gender-based division of household responsibilities (Maslach & Leiter, 1997). However, research studies with Iranian and Chinese participants indicate that women still believe household duties are the main responsibility of women. Results also indicated that female employees spend more time on household responsibilities than their husbands and males were more likely to spend more time on their work compared to females (Bagherzadeh, 2016; Bu & McKeen, 2000; Wang, Liu, Wang, Wang, 2012).

**Work-life balance theories.** Clark’s (2000) family-work border theory and boundary theory (Ashforth, Kreiner & Fugate, 2000) both address how individuals create, maintain and cross work and family roles. Both theories acknowledge that family and work domains are interconnected, with penetrable boundaries, which influence each other. Ashforth et al., (2000) argues that boundaries between roles vary on a continuum from integration to segregation based on how flexible (extent role boundaries are malleable), permeable (extent one can be physically in a role but psychologically or behaviourally in another) and contrasting (extent roles are similar or different) they are. When roles are low in contrast and their boundaries are flexible and permeable, the roles are described as integrated (Ashford et al., 2000) or blended (Clark, 2000). When roles are high in contrast and their boundaries are inflexible and impermeable, the roles are described as segmented. Both theories suggest that there are costs and benefits associated with integrated and segmented roles (Clark, 2000; Ashforth et al., 2000, Kreiner, 2002; Nippert-Eng, 1996).

Positively, integrated roles allow for an easy transition between the boundaries of work and family. However, negatively, they create low role clarity between work and family, increased interrole distractions and difficulty compartmentalizing work and family identities and vise versa for segmented roles (Desrochers, 2002). For instance, working at home and advance technology may be positive in the sense that it allows one to save time commuting and to spend more time with family, however, constantly salient and accessible work and family cues may
cause an individual additional stress (Chesley, Moen, & Shore, 2001; Desrocher, 2002; Galinsky & Kim, 2000; Nippert-Eng, 1996; Shamir, 1992). Furthermore, research indicates that fit between actual and preferred level of integration or segmentation in a role predicted positive outcomes such as increased work and family satisfaction, decreased stress, anxiety and depression and that creating spatial, behavioural, temporal and social boundaries promote work-life balance (Ahrentzen, 1990, Ashforth et al., 2000; Edwards & Rothbard, 1999; Kreiner, 2002).

Similarly, conflict theory argues that work and family domains are incompatible due to differing norms, roles and responsibilities, which causes conflict and spillover from one domain to the other (Byron, 2005; Greenhaus & Beutell, 1985). Research findings which support this theory indicate that negative emotions can spillover from one domain to the other, contributing to work-life conflict (Byron, 2005). Related to all three theories, is research which indicates that the more time an individual spends, specializes in, or participates in a domain, the more they will perceive interference and conflict from the other domain (Byron, 2005; Pleck, 1977). For example, the more involved an individual is in the work domain the more likely the individual will perceive the family domain as interfering with the participation in the work domain and vice versa. Additionally, when individuals value or invest more into one domain, they will be more likely to identify with that domain. Some may come to identify so closely with one domain that it becomes their entire identity and work-life conflict is likely to ensue. For instance, some may spend more time, value higher, and identify closer with their work domain then their personal/family domain and become more comfortable at work than home.

**Antecedents.** Research indicates antecedents of work-life conflict for employees include: marital strife, parent-child conflict, number of children, job stress, (Byron, 2005), as well as personality characteristics such as: type A behavior, inflexibility and intolerance for ambiguity (Greenhaus & Callanan, 1994; Latack, 1989). Byron (2005) found marital status to be weakly related to work-life conflict, with employees with children being slightly correlated to work-life conflict. Furthermore, research suggests that gender is weakly correlated to work-life conflict (Byron, 2005; Martocchio & O’Leary, 1989). In a sample of physicians, Keeton, Fenner, Johnson, Hayward (2007) found a lack of differences between male and female physicians’ levels of work-life balance. However, female physicians reported fewer total weekly hours worked and fewer total weekly hours on call. Based on the result from this study, it is hypothesized that if females worked similar hours as their male counterparts, they may
experience greater levels of work-life conflict than men. Women may also deliberately work fewer hours than men to obtain a greater work-life balance.

**Impact of work-life conflict.** Below will outline past literature, which indicates that work-life conflict has various negative impacts on work, personal and interpersonal outcomes. The goal of providing the below research is to highlight the importance of understanding the relationship between delayed gratification and work-life conflict. Since past literature has well established the association between work-life conflict and negative correlates, it is especially important to understand if delayed gratification is an antecedent. If delayed gratification is a precursor of work-life conflict, the results will provide a clearer understanding of interventions required to address the drivers of work-life conflict and indirectly alleviate its negative correlates.

**Work outcomes.**


A statistically significant relationship between work-life conflict and career satisfaction has been observed across various samples and occupations including: accounting professionals, (Bedeian, Burke, Moffett, 1988; Parasuraman, Greenhaus, Rabinowitz, Bedeian, and Mossholder, 1989), executives (Judge, Boudreau, & Bretz, 1994), police personnel (Burke, 1988), health professionals (Thomas & Ganster, 1995), retail employees (Good, Sisler, & Gentry, 1988), restaurant employees (Boles & Babin, 1996), nurses and engineers (Bacharach, Bamberger, & Conley, 1991), teachers (Cooke & Rousseau, 1984), married male naval personnel (Jones & Butler, 1980), elementary and high school teachers and administrators, small business owners, and real estate sales employees (Netemeyer, Boles, & McMurrian, 1996).

*Decreased job performance.* Research suggests a significant negative correlation between work-life conflict and job performance. Those who reported higher levels of work-life conflict
tended to report lower levels of job performance such as lower levels of self-reported performance, sales income and productivity (Allen et al., 2000; Frone & Rice, 1987; Frone, Yardley, and Markel, 1997; Higgins, Duxbury, & Irving, 1992; Peluchette, 1993; Yavas, Babakus, Karatepe, 2008). One rationale for this relationship is that individuals who are experiencing work-life conflict focus their attention on completing their tasks at an acceptable level rather than performing at an exceptional level. Another rationale is that individuals experiencing work-life conflict are less likely to engage in extra role behaviour that may increase their job performance such as mentoring others or finding a suitable mentor, both of which are well documented as promoting job performance. This may be because they are reluctant to expend additional time and energy on these behaviours (Allen, Poteet, & Burroughs, 1997; Organ, 1988; Scandura, 1992).

**Absenteeism.** Research results indicate a positive correlation between work-life conflict and workplace absenteeism (Higgins, Duxbury, & Irving, 1992; van der Heijden, Dillingh, Bakker, & Prins, 2008; Yavas, et al., 2008). This research suggests that those with work-life conflict are more likely to experience physical health declines, which then leads to workplace absenteeism.

**Employee turnover.** Research indicates a significant positive relationship between work-life conflict and employee turnover (Allen et al., 2000; Higgins, Duxbury, & Irving, 1992; van der Heijden et al., 2008; Yavas, Babakus, Karatepe, 2008). Researchers have measured and found significant correlations between actual turnover as well as greater intentions to leave their employer (Burke, 1988; Good et al., 1988; Grandey & Cropanzano, 1999; Greenhaus, Collins, Singh, & Parasuraman, 1997; Lingard 2004; Lyness & Thompson, 1997; Netemeyer et al., 1996). These suggest that as work-life conflict increases employees may react by wishing, intending or actually leaving their workplace and seeking alternative employment that offers better work-life balance.

**Workplace stress.** Work-family conflict is associated with work stress in the following studies (Cooke & Rousseau, 1984; Frone, Russel, Cooper, 1992; Frone, Yardley, & Markel, 1997; Grandey & Cropanzano, 1999; Greenglass & Burke, 1988; Guelzow, Bird, & Koball, 1991; Judge et al., 1994; Kinmnen & Mauno, 1998; Netemeyer et al., 1996; Stewart & Barling, 1996).

**Burnout.** Across numerous studies, burnout appears to be the most common impact of work-family conflict (Bakker & Demerouti, 2008; Aryeel, 1993; Lingard, 2004). Researchers
such as Shirom Melamed, Toker, Berliner, & Shapira (2005) and Bagherzadeh et al., (2016) suggest that work-life conflict is the strongest predictor of burnout. Other research is consistent with these findings (Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Aryee, 1993; Bacharach et al., 1991; Blanch and Aluja, 2012; Burke, 1988; Drory & Shamir, 1988; Dyrbye, Shanafelt, Balch, Satele, Sloan, & Freischlag, 2011; Farhadi, Movahedi, Nalchi, Daraei, & Mohammadzadegan, 2013; Greenglass & Burke, 1988; Izrieli, 1988; Kinnunen & Mauno, 1998; Matsui, Ohsawa, and Onglatco, 1995; Mete, 2014; Montgomery, Panagopolou, de Wildt, & Meenks, 2006; Netemeyer et al., 1996; Sholi, Beshlideh, Hashemi, & Arshadi, 2011; Wang, Chang, Fu, Wang, 2012; Wang et al., 2012).

**Personal outcomes.**


**Decreased mental health.** The relationship between work-life conflict and decreased psychological health has been investigated in several studies, with varying definitions of psychological health. O’Driscoll et al., (1992) found a correlation between work-life conflict and psychological strain, which was measured by the General Health Questionnaire, which assesses general mental health, ability to cope with difficulties, feelings of self-worth, and enjoyment of daily activities. Similarly, Matsui, Ohsawa & Onglatco (1995) found a correlation between work-life conflict and psychological strain, and others have found similar correlations with variables such as psychological distress (Major, Klein, & Ehrhart, 2002; Wang, Liu, Wang, Wang, 2012), poorer mental health (Frone, Russell, & Barnes, 1996), increased levels of anxiety (Beatty, 1996; Greenglass et al., 1998), increased levels of irritability and hostility (Beatty,
1996), general life stress and negative feelings outside of work such as being upset, frustrated, or tense (Barling & MacEwen, 1991; Klitzman, et al., 1990; Parasuraman, Greenhaus, Granrose, 1992; Parasuraman, Purohit, Godshalk, & Beutell, 1996).

**Depression.** Another concerning significant correlate of work-life conflict is depression, which has been documented in several studies (i.e. Adams, King, & King, 1996; Burke, 1988; Frone et al., 1992, Frone et al., 1996; Googins & Burden, 1987; Greenglass et al., 1988; Greenhaus & Beutell, 1985; Klitzman et al., 1990; MacEwen & Barling, 1994; Netemeyer et al., 1996; Reifman et al., 1991; Thomas & Ganster, 1995). Overall, depression is an extensively documented correlate of work-life conflict.

**Substance abuse.** Various research studies have found a positive relationship between work-life conflict and alcohol abuse. More specifically, researchers have found a correlation between work-life conflict and increased frequency of drinking, drinking to cope with difficulties, drinking problems and long-term difficulties with heavy alcohol use (Frone, Russell, & Cooper, 1993; Frone, Barnes, & Farrell, 1994; Frone et al., 1996; Frone, Russell, & Cooper, 1997; Matsui, et al., 1995).

**Decreased physical health.** Numerous studies have indicated a relationship between increased levels of work-life conflict and decreased physical health. More specifically, there was a relationship between work-life conflict and physical symptoms and complaints of poor appetite, fatigue, nervous tension and elevated blood pressure (Adams & Jex, 1999; Burke, 1988; Cooke & Rousseau, 1984; Frone, Russell & Barnes, 1996; Googins & Burden, 1987; Grandey & Cropanzano, 1999; Greenglass et al., 1988; Guelzow, Bird, & Koball, 1991; Hughes & Galinsky, 1994; Judge et al., 1994; Kinnunen & Mauno, 1998; Klitzman et al., 1990; Netemeyer et al., 1996; Reifman, Biernat, & Lang, 1991; Thomas & Ganster, 1995; van der Heijden et al., 2008).

**Cognitive difficulties.** Barling and MacEwen (1991) study identified a relationship between work-life conflict and cognitive difficulties such as lower concentration and decreased attention. The results from their study suggest that those with high work-life conflict may experience cognitive overload, as they must attend to incompatible demands from their work and personal life at once, which may manifest as cognitive difficulties.

**Interpersonal outcomes.** Research indicates a significant relationship between work-life conflict and general interpersonal strain. The following research is related to the negative interpersonal outcomes of work-life conflict specifically marital and family distress.
Marital distress. Research indicates a positive correlation between levels of work-life conflict and marital dissatisfaction, impaired marital functioning and marital stress. Firstly, research has identified a positive correlation between work-life conflict and marital dissatisfaction, such that those with high work life conflict have high levels of marital dissatisfaction (Adams et al., 1996; Amstad, et al., 2011; Bagherzadeh et al., 2016; Burke, 1988; Dyrbye et al., 2011; Frone et al., 1992; Greenhaus & Beutell, 1985; Judge, Ilies, Scott, 2006; Netemeyer, et al., 1996; Perrone, Webb, Blalock, 2005; Sholi, et al., 2011; Thomas & Ganster, 1995). Further, Bagherzadeh et al., (2016) research indicates that work-life conflict accounted for maximum variance in overall marital satisfaction. Secondly, research results suggest correlations between work-life conflict and impaired marital functioning (Barling, 1986; Beatty, 1996; Bedeian et al., 1988; Blood & Wolfe, 1960; Chiu, 1998; Duxbury et al., 1996, Greenglass et al., 1988; Greenhaus et al., 1987; Parasuraman et al., 1989; Suchet & Barling, 1986). Lastly, it has been identified that work-life conflict is correlated with marital stress (Guelzow et al., 1991).

Further, stress from the workplace can spillover to a romantic relationship. For instance, researchers found arguing in the workplace was positively associated with arguments with one’s spouse (Bolger, DeLongis, Kessler & Wethington, 1989).

Family distress. Interpersonally, research suggests that for those who are married or have children, work-life conflict is related to: lower satisfaction with the family, (Aryee et al., 1999; Frone, et al., 1994; Kopelman, et al., 1983; Pleck et al., 1980; Rice et al., 1992; Staines & O’Connor, 1980); decreased family performance (Frone, et al., 1997); increased family distress (Frone et al., 1992; Frone, et al., 1997; Grandey & Cropanzano, 1999); increased familial conflict (Wiersma & van den Berg, 1991); increased parental stress, decreased quality of family life (Duxbury & Higgins, 1991; Higgins & Duxbury, 1992), parental dissatisfaction (Kinnunen & Mauno, 1998) and dissatisfaction with the role of working parent, for mothers (Barling, MacEwen, 1991). Research has also indicated that workplace stress can spillover to the family. For instance, Repetti and Wood (1997) found that mothers were more withdrawn and irritable to their children during days of increased workplace stress.

Overall, many individuals experience difficulties balancing their work and personal life. The current nature of workplaces, technological advances and changes in society and family structures has contributed to an increase in work-life conflict. Clark’s (2000) family-work border theory and boundary theory (Ashforth, Kreiner & Fugate, 2000) describe that work-life conflict occurs due to incompatible norms, roles and responsibilities between the work and life domain,
which causes conflict and spillover. Research indicates that work-life conflict has negative impacts on an individual’s personal well-being, interpersonal relationships and their career. Past literature related to work-life conflict indicates personality traits such as type A behavior, inflexibility and intolerance for ambiguity to be related to work-life conflict (Greenhaus & Callanan, 1994; Latack, 1989). Combining this theory and literature, it is expected that a) delayed gratification will be an antecedent of work-life conflict, as individuals scoring high on delayed gratification are expected to focus more on their work than their personal life domain, creating work-life conflict b) work-life conflict is correlated to career burnout, this correlation has been extensively supported by past literature; thus, the goal of this hypothesis is to replicate past study findings.

**Career Burnout**

Career burnout is an occupation related state of ill-being that is defined as a three-dimensional syndrome of exhaustion, cynicism, and reduced professional efficacy (Maslach & Jackson, 1996; Maslach, Jackson, & Leiter, 1996). Currently, burnout is not recognized as a clinical diagnosis in the 5th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013) or as a primary diagnosis in the *International Classification of Diseases* (World Health Organization, 1993). While individual experiences of burnout may vary, at varying times due to personal or situational factors, the three dimensions of burnout, exhaustion, cynicism and reduced professional efficacy are universally experienced. The Maslach Burnout Inventory (MBI), is based on psychometric research and is the most prominent and most administered questionnaire to assess the three dimensions of burnout: exhaustion, cynicism and reduced professional efficacy (Maslach & Jackson, 1981; Maslach, Jackson, & Leiter, 1996).

The first of the three career burnout dimensions, exhaustion, is identified as a feeling of fatigue and depleted energy because of one’s work (Leiter & Maslach 2016). Exhaustion is commonly conceptualized as the most dominant dimension of burnout. However, it is a misconception to assume that career burnout is entirely caused by exhaustion from working too long or too hard. Individuals experiencing career burnout are more than exhausted they are also experiencing high levels of cynicism and decreased professional efficacy. Focusing entirely on the dimension of exhaustion disregards the other important aspects of career burnout and is thus, not independently a sufficient indicator of career burnout (Cherniss, 2014; Light, 2015).
The second of the three career burnout dimensions, cynicism, refers to the development of a negative psychological relationship to work. This may manifest as a “negative or excessively detached response to the work itself and/or to the individuals with whom employees’ interact with while performing their job” (Bakker & Costa, 2014, p. 113). Negative attitudes toward work or colleagues may include irritability, pessimism about the value and meaningfulness of one’s occupation and a loss of idealism, interest, motivation and identity. Whereas, a detached response to work may include cognitively and emotionally distancing oneself, withdrawing oneself, or displaying low dedication or involvement to work activities and colleagues (Bakker & Costa, 2014; Leiter et al., 2016). As cynicism develops, a job that was once fascinating and fulfilling becomes meaningless and unfulfilling (Maslach & Leiter, 1997).

The third and final, dimension of career burnout, professional inefficacy, refers to feelings of decline in one’s competency and achievement at work. Individuals may begin to feel doubtful of their ability to perform, their ability to cope and an overall sense of inadequacy in work related skills. Individuals experiencing personal inefficacy also develop a sense of decline in their feelings of successful achievements, this also includes reduced feelings of productivity, harsh evaluation of personal work outcomes and a sense of no longer producing work that benefits society (Leiter, et al., 2016; Maslach & Leiter, 1997; Maslach, Schaufeli, Leiter, 2001; Schaufeli, Shimazu, Taris, 2009).

There are correlations between the three dimensions of burnout, however, they are not the same and independently the dimensions are not sufficient to assess burnout (Maslach & Leiter, 2008). In fact, when the dimensions are considered singularly, the presenting difficulties are quite different. Leiter et al., (2016) research identified five different work profiles: 1. Engagement (44%; $n=771$), which encompasses low levels across exhaustion, cynicism and diminished professional efficacy; 2. Burnout (8%; $n = 136$), which includes high levels of exhaustion, cynicism and diminished professional efficacy; 3. Overextended is the sole experience of exhaustion (7%; $n=199$); 4. Disengaged, is the sole experience of work-related cynicism (10%; $n = 118$); and, 5. Ineffective (31%; $n = 542$), is the sole experience of high levels of professional inefficacy. This profile encompasses a significant percentage of the research population indicating that work inefficacy may be a more common experience than burnout, overextension or disengagement. Distinctions in profiles are significant, as each profile may benefit from unique interventions which address the core difficulty. For instance, interventions that target difficulties related to exhaustion in the overextended profile differ from interventions
to alleviate feelings of work inadequacy in the ineffective profile. Adapting interventions to alleviate the core work issue of each of the profiles enables efficient use of employer resources.

While there are similarities between career burnout and workaholism there is a distinct difference. In workaholism, individuals experience the characteristic symptoms of career burnout: exhaustion, cynicism and reduced personal efficacy as well as high work engagement. In other words these individuals are tired, experiencing low moods, and decreased feelings of accomplishment but continue to have motivation to perform in their jobs (Bakker, Albrecht, & Leiter, 2011; Salmela-Aro, 2015; Sonnentag, 2011; Schaufeli, Taris, & Van Rhenen, 2008; Shimazu, Schaufeli, Kamiyama, & Kawakami, 2015; Upadyaya, Vartiainen, Salmela-Aro, 2016).

In the literature the prevalence of career burnout, tends to vary based on the burnout measure administered and the characteristics of the participants. For instance, in Leiter et al., (2016) an Eastern Canada study which included 1766 health care employees, researchers identified a burnout prevalence of 8%, with burnout defined as high levels of exhaustion, cynicism and diminished professional efficacy and 56% of the sample experienced high levels of at least one dimension of burnout. In Shanafelt et al., (2015) US study which included 5392 employed nonphysicians aged 29-65 and 6880 physicians, the prevalence of burnout, was 28% for the general population and 63% for physicians, where burnout was defined as high scores on emotional exhaustion and/or depersonalization subscales of the Maslach Burnout Inventory (Shanafelt et al., 2015). Outside of North America, Ahola et al., (2005) identified a burnout rate of 20% in a sample of Finnish employees. Additionally, a development of one dimension of burnout may predispose an individual to develop other dimensions of burnout. A significant replicated finding in the literature indicates that burnout is a relatively stable phenomenon, with longitudinal data indicating stability of burnout over five, ten and even fifteen years. Unfortunately, this research suggests that once individuals experience burnout they are likely to continue to experience it in the future (Bakker & Costa, 2000, Hakanen, Schaufeli, & Ahola, 2008; Hakanen et al., 2011, Schaufeli et al., 2011).

**Antecedents.** While it may be hypothesized that career burnout is caused by working too long or too hard, there are actually many other antecedents to career burnout which are often classified into organizational factors and individual factors (Bakker & Costa, 2014).

**Organizational factors.** Maslach & Leiter (1997) argues that burnout occurs when one of these six organizational factors chronically conflicts with individual values and/or their job: high
workload, control, reward, community, fairness and values. High workload has been replicated as an antecedent in many studies (see Bakker, Demerouti, De Boer, & Schaufeli, 2003; Demerouti et al., 2001; Guan et al., 2017; Leiter & Maslach, 2009; Makikangas, Feldt, Kinnunen, Tolvanen, 2012; Schaufeli, Bakker, 2004; Schaufeli, et al., 2011; Schaufeli, 2015). Control, referring to low levels of perceived control is a significant predictor of career burnout (Keane, Ducette, Adler, 1985). Researchers such as Keeton Fenner, Johnson, Hayward, (2007) found that control over work hours was the most important predictor of career burnout. Other research is also consistent with these results (see Freeborn, 2001; Richardsen, Burke, 1991; Stoddard, Hargraves, Reed, Vratil, 2001; Visser, Smets, Oort, De Haes, 2003). Finally, research indicates that a lack of participation with one’s work community and lack of social support at work increases the risk of career burnout (Ahola et al., 2006a; Schaufeli and Enzmann, 1998; Starmer, Frintner, Freed, 2016).

There are also robust findings for the relationship between a lack of job resources and high levels of career burnout (see Bakker et al., 2003; Bakker & Costa, 2014; Demerouti et al., 2001; Hakanen et al., 2006; Makikangas, et al., 2011; Maslach et al., 2001; Schaufeli, Bakker, 2004; Schaufeli, et al., 2011; Schaufeli, 2015; Starmer, et al., 2016). Job resources are aspects of a job that assist an individual in meeting job demands and goal achievement (Bakker & Demerouti, 2014). Job resources may moderate the association between workload and career burnout; when employees have high work resources such as feedback, social support with colleagues and their supervisor, the relationship between workload and career burnout was not significant. Thus, career burnout is more likely to develop when high job demands are combined with low job resources (Bakker & Costa 2014; Bakker, Demerouti, Euwema, 2005; Bakker and Demerouti, 2007, Bakker & Demerouti, 2014, Demerouti & Bakker, 2011). Finally, research has identified work-life conflict as the main contributor to career burnout in surgeons (Gifford et al, 2014; Guest et al., 2011; Kuerer et al, 2007; Sargent, Sotile, Sotile, Rubash, Barrack, 2004).

**Individual factors.** Individual factors include both demographic and personality factors which have been identified as predisposing employees to career burnout.

**Personality.** In general, personality is relatively stable across the lifespan; thus, if employees possess personality traits that do not align with their job demands, stress and frustration may develop, contributing to an increased risk of career burnout (Bakker & Costa, 2014; Xanthopoulou, Bakker, & Ilies, 2012). In terms of specific personality traits, researchers found emotional stability, extraversion, conscientiousness, agreeableness (Alarcon, Eschleman,
and Bowling, 2009) and resilience (Bakker & Demerouti, 2008) to be negatively associated with career burnout. Research examining career burnout in physicians found traits that may enable success in medical training and practice such as: high achievement orientation, perfectionism, compulsiveness, difficulty setting boundaries, intellectualization and delayed gratification may contribute to career burnout (Gazelle, Liebschutz, Riess, 2014; Miller & McGowen, 2000; Shapiro, 2017; Spickard, Gabbe, Christensen, 2002; Wallace, Lemaire, Ghali, 2009). For instance, those with high achievement orientation traits may be willing to spend a large amount of time on academic or professional pursuits because they derive a large amount of their value and identity from success in this domain. High achievement orientation creates a powerful desire to accomplish, which leaves these individuals vulnerable to career burnout (Alan, 2018).

Gender. There is some research which suggests that women experience greater levels of burnout. Dyrbye et al. (2011) indicate that female surgeons are more likely to experience career burnout compared to male surgeons despite working an equal number of hours. Research by Ahola (2014) has found comparable results. These results may occur because women are less likely to rely on their spouse for childcare and are more likely to report that their spouse’s career takes priority over their own (Dyrbye et al., 2011).

Age and career stage. Research indicates that young employees are more likely to experience career burnout, and that increases in age was consistently correlated with lower levels of career burnout (Ahola, 2014; Keeton, et al, 2007).

Physical and mental health. Poor health including both physical and mental health has a reciprocal relationship with career burnout, as poor health contributes to burnout and burnout further contributes to poor health (Ahola, 2014; Maslach & Leiter, 2016; Starmer, et al., 2016; Upadyaya et al., 2016; Ahola, 2014).

Impact of Burnout. Below will outline past literature, which indicates that burnout has extensive physical, psychological and career related consequences. The goal of providing the below research is to illuminate the negative impact of burnout and thus highlight the importance of understanding its predictors, particularly the predictors hypothesized for this study, delayed gratification and work-life conflict. If delayed gratification and/or work-life conflict are
predictors of burnout, the results will provide a clearer understanding of interventions required to address the drivers of burnout and indirectly alleviate its negative correlates.

**Physical outcomes.**

*Cardiovascular disease.* Burnout is a significant risk factor for cardiovascular diseases (Ahola, 2007; Appels, Schouten, 1991). A large longitudinal study, which followed 8,838 participants for an average of 3.4 years identified burnout as a significant risk factor for developing coronary heart disease, which can cause heart attacks (Toker, Melamed, Berliner, Zeltser, Shapira, 2012). More specifically, researchers found that those in the top 20% of the burnout inventory had a 79% increased risk of developing coronary heart disease over the course of the study (Toker et al., 2012). Other researchers have found related results such as Toppinen-Tanner, Ahola, Koskinen, Väänänen (2009) ten-year longitudinal study, which found a relationship between burnout and hospitalization due to cardiovascular disorder. It is hypothesized that the mechanism for this relationship is through high cholesterol, which may induce inflammation throughout the body and increase plaque in the coronary arteries increasing the risk of heart disease (Kitaoka-Higashiguchi, et al., 2009).

*Dysregulation of the neuroendocrine system.* Prolonged stress from burnout may exhaust the autonomic nervous system (ANS) and the hypothalamic-pituitary-adrenal (HPA). The HPA assists in the regulation of stress by releasing cortisol into the bloodstream. After stress has subsided, cortisol levels decrease and the HPA returns to baseline. However, for employees experiencing long-term stress from burnout, cortisol levels remain high and do not return to baseline. When cortisol levels remain high for too long the body downshifts the release of cortisol to atypically low levels, which can lead to numerous health difficulties (Michel, 2016; Danhof-Pont, van Veen, Zitman, 2011).

*Changes in brain structure.* Neurologist Savic (2013) research examined individuals experiencing burnout. The results indicated that those experiencing burnout had anatomical changes in the structure of the brain that are heavily involved in the regulation of stress. Burnt out individuals had larger amygdalae and shrinking in the caudate. This overactivation in the area of the amygdala then causes a ripple effect, which leads to impaired functioning of the mPFC regions, which then further stimulates the amygdala, which then causes more activation of the mPFC, this cycle causes damage to the structures, which leads to cortical thinning and memory, attention and emotional difficulties Savic (2013). Savic (2013) also found that the normal impacts of aging on the brain were more prominent in the burnout group along with significant
reductions in gray-matter volume in the hippocampus, caudate, and putamen compared to the control group.

*Low levels of daily energy.* Research has indicated a correlation between burnout and low levels of daily energy (Sonnenschein, Sorbi, Doornen, Schaufeli, Maas, 2007). It is hypothesized that an individual’s low levels of daily energy from burnout is exacerbated by a diminished capacity to successfully cope with daily job demands. In other words, for individuals experiencing burnout, daily job demands further deplete already low energy levels resulting in daily exhaustion and prolonged fatigue (Leone, Huibers, Knottnerus, Kant, 2009).

*Other physical difficulties.* Other physical difficulties which have been linked to burnout include: gastrointestinal issues (Kim, Ji, & Kao, 2011; Mohren et al., 2003), respiratory problems (Kim, et al., 2011), infections such as the common cold (Mohren et al., 2003), musculoskeletal pain (Aghilinejad, Zargham Sadeghi, Sarebanha, Bahrami-Ahmadi, 2014; Armon, Melamed, Shirom, Shapira, 2010; Melamed, 2009), neck pain (Peterson et al., 2008), severe injuries (Ahola, Salminen, Toppinen-Tanner, Koskinen, Väänänen, 2013) and mortality below the age of 45 years old (Ahola, Väänänen, Koskinen, Kouvonen, Shirom, 2010). Inconclusive results were detected for headaches; Kim, et al., (2011) three-year longitudinal study noted a significant association but other studies have not (Grossi, Thomten, Fandiño-Losada, Soares, Sundin, 2009).

*Participation in unhealthy behaviours.* Furthermore, high levels of burnout are associated with engagement in unhealthy behaviours such as an unbalanced diet, sedentarism, smoking and increased alcohol consumption (Cecil, McHale, Hart, & Laidlaw, 2014, Chandola et al., 2008). These unhealthy behaviours may exacerbate negative health consequences causing difficulties with obesity (Ahola et al., 2000), type 2 diabetes (Melamed, Shirom, Toker, & Shapira, 2006) and alcohol abuse (Ahola et al., 2006b).

*Psychological Outcomes.*

*Sleep difficulties.* Individuals experiencing burnout are more likely to experience sleep difficulties such as trouble falling asleep, insomnia, sleep disturbances and nonrefreshing sleep (Brand, 2010; Kim et al., 2011; Peterson et al., 2008; Sonnenschein et al., 2007). A lack of quality and quantity of sleep may partially explain why burnt out individuals experience exhaustion.

*Depression.* Several studies suggest a significant relationship between burnout and depressive symptoms (Ahola, 2007; Iacovides, Fountoulakis, Kaprinis, Kaprinis 2003; Maslach et al., 2001; Peterson et al., 2008; Plieger, Melchers, Montag, Meermann, Reuter 2015; Schulz et
Researchers have identified a 20% shared variance between the constructs of career burnout and depression (Iacovides et al., 2003; Plieger, 2015). While there is overlap between the constructs, depression encompasses a larger scope than burnout. Depression may originate from any life domain including: personal, career, finances, leisure, health etc. whereas burnout mostly originates from the career domain (Plieger, 2015). Depression may intensify burnout, as individuals experiencing depressive symptoms may have fewer resources to meet their job demands, increasing burnout symptoms and decreasing work engagement (Upadyaya et al., 2016; Aloha et al., 2005; Ahola & Hakanen, 2007). The causal relationship between burnout and depression is inconclusive. Some argue that burnout typically precedes the development of depressive symptoms (Demerouti et al., 2001; Hakanen and Schaufeli 2012; Hakanen, et al., 2008; Innstrand, Langballe, & Falkum, 2012) whereas others argue that depressive symptoms may occur first and then spillover to burnout (Upadyaya et al., 2016).

Psychotropic medication usage. Researchers have identified a relationship between burnout levels and psychotropic medication usage. When Madsen, Lange, Borritz, Rugulies (2015) analyzed national prescription registry data, which contain all purchased prescriptions in Denmark, they found a 5.17% increase in antidepressant use in men with high levels of burnout compared to men with intermediate levels of burnout and a .96% increase in women with high levels of burnout compared to women with intermediate levels of burnout. Similarly, Leiter et al. (2013) found that yearly burnout levels significantly predicted use of psychotropic and antidepressant medication in the subsequent eight years.

Hospitalization for mental disorders. In a ten-year longitudinal study in Finland Madsen et al., (2009) identified burnout as a predictor of hospitalization due to mental disorders.

Psychological ill-health symptoms. “The term psychological ill-health can cover a broad range of symptoms and experiences, from minor symptoms such as poor mood or tension to longer-term major difficulties such as clinically diagnosable mental disorders” (Scaife, Merg, & Amati, 2006, p. 2). Numerous researchers have consistently found a positive correlation between
burnout and psychological ill-health symptoms (Brazeau et al., 2014; de Beer, Pienaar, Rothmann, 2016; Dyrbye, et al., 2014; Peterson et al., 2008; Shanafelt, et al., 2015).

Firstly, correlations have been found between anxiety and burnout in many studies such as (Honkonen et al., 2006; Maslach et al., 2001; Peterson et al., 2008; Schulz et al., 2011). Specifically, in a study among a nationally representative sample of more than 3000 Finnish workers, Ahola & Hakanen (2007) reported an increased prevalence of anxiety disorders among burned-out employees. Secondly, burnout has been linked to a reduction in quality of life and overall well-being (Dyrbye et al., 2011, van der Heijden, Dillingh, Bakker, & Prins, 2008; Hakanen et al., 2008). Thirdly, research suggests that high levels of burnout negatively impact an individual’s level of self-esteem and self-worth (Maslach et al., 2001; Michel & Leiter, 2016; Shanafelt et al., 2012). Lastly, burnout has been identified as being linked to a loss of idealism, direction, purpose and ambition as well as a sense that their work is no longer meaningful (Michel et al., 2016; Shanafelt, et al., 2012).

Cognitive dysfunction. Burnout is associated with impaired cognitive functioning in numerous studies and reviews (see: Deligkaris, Panagopoulou, Montgomery, & Masoura, 2014; Peterson et al., 2008). Specifically, those experiencing burnout had greater difficulty with executive attentional tasks, including sustained attention, attention switching and memory related tasks (Deligkaris et al., 2014).

Emotional dysregulation. The experience of burnout may create changes in brain anatomy, which may subsequently impact an individual’s emotional functioning and more specifically their ability to regulate negative emotions. Golkar et al. (2014) examined emotional regulation of stress in individuals diagnosed with burnout compared to controls. Participants were instructed to view a neutral or negative image, they were then prompted to either suppress, intensify or maintain their emotional response to the image, they were then presented with the image again, as they focused on the image they were presented with a loud startling noise. Data from electrodes, which measured participants’ brain activity suggested that controls and those experiencing burnout had similar emotional reactions to the stressful stimuli when they were prompted to maintain or intensify their emotional reactions. However, individuals diagnosed with burnout had stronger physical responses in reaction to the stressful stimuli when they were instructed to suppress their emotional reaction. This suggests that those diagnosed with burnout have greater difficulty regulating negative emotional responses compared to those who are not experiencing burnout. Resting-state functional MRI data also indicated that those diagnosed with
burnout had relatively enlarged amygdalae and weaker connections between the amygdala and areas of the brain related to emotional and executive functioning. Other research such as Maslach et al. (2001) is consistent with these research findings and suggests a correlation between burnout and low tolerance of frustration.

**Work Outcomes.**

*Job dissatisfaction.* Research such as Keeton et al., (2007) have indicated a strong positive association between measures of burnout and career dissatisfaction.

*Disengagement.* Various studies suggest that burnout is positively correlated to work disengagement (Hakanen, Bakker, Schaufeli, 2006; Shanafelt et al., 2009, Soler et al., 2008; Taris, 2006).

*Withdrawal behaviours.* Research suggests that individuals experiencing burnout are more likely to exhibit withdrawal behaviours such as lateness, absenteeism, sick leave, absence due to clinical burnout, hindered organizational commitment, job abandonment, intention of quitting and turnover (Armstrong-Stassen & Ursel, 2009; Duijts, Kant, Swaen, van den Brandt, & Zeegers, 2007; Hakanen et al., 2006; Hanisch, 1995; Leiter & Maslach, 2009; Maslach et al., 2001; Shanafelt, 2012; Shanafelt et al., 2015; Soler et al., 2008; Swider and Zimmerman 2010; Wallace, et al., 2009).

*Absenteeism.* Absenteeism involves absence from work due to physical or mental ill-health, family emergencies, lack of motivation, low morale, or other unjustified reasons. Absenteeism has been identified as a significant correlate of burnout such as in Swider & Zimmerman (2010) meta-analysis of 115 studies as well as other studies (i.e. Borritz, Rugulies, Christensen, Villadsen, Kristensen, 2006; Borritz, et al., 2010; Duijts et al., 2007; Hallsten, Voss, Stark, Josephson, 2011; Maslach et al., 2001; Schaufeli, Bakker, Van Rhenen, 2009; Soler et al., 2008). Additionally, research has identified burnout as a significant predictor of future absence and long term absenteeism of 3+ days (Toppinen-Tanner, Ojajärvi, Väänänen, Kalimo, and Jäppinen, 2005), 42+ days (Roelen et al., 2015), 60+ days (Hallsten et a., 2011) and the exhaustion dimension of burnout has been associated with long term illness, which is classified as 90+ days absent (Peterson et al., 2011).

Employees with the highest levels of burnout were absent on average for 13.6 days a year, compared to an average of 5.4 days a year for those with the lowest levels of burnout. Furthermore, an increase in burnout levels increased sickness absence by 21% even after controlling for sociodemographic, work and health considerations (Borritz, et al., 2006). For the
individual experiencing burnout, absenteeism may contribute to additional consequences such as social decline at work and job loss. For the employer, absenteeism may have economic consequences such as a decrease in productivity (Ahola, et al., 2010).

Presenteeism. While burnout is associated to absenteeism it is also associated with presenteeism, which refers to an employee attending work while ill (Cooper, 1996; Demerouti, Le Blanc, Bakker, Schaufeli, Hox, 2009). Researchers Demerouti et al., (2009) noted a reciprocal relationship between burnout and presenteeism, as presenteeism contributes to burnout and burnout contributes to presenteeism, creating a downward spiral. More so, presenteeism is linked to other negative work outcomes for both the individual and workplace. For the individual, presenteeism is linked to diminished productivity, or an increase in additional time and effort to accomplish typical levels of productivity, which may then further contribute to symptoms of burnout (Bakker, Costa, 2014). Additionally, the workplace as a whole may suffer as employee presenteeism may put other colleagues at risk of illness (Roe, 2003).

New disability pension. Research indicates that burnout is associated with new disability pension, including one extensive longitudinal study which included 3,125 participants over four years. This relationship withheld even after controlling for other variables such as age, gender, marital status, occupational status, sector, mental disorders and physical illnesses (Ahola et al., 2009a; Ahola, Toppinen-Tanner, Huuhtanen, Koskinen, Väänänen, 2009b).

Perception of high job demands. Researcher suggests that those experiencing burnout are more likely to perceive high job demands in their position (Demerouti, Le Blanc, Bakker, Schaufeli, Hox, 2009; Wang, Huang, You, 2016. In conjunction with perceiving high work demands individuals experiencing burnout are more likely to complain about their job demands, further creating a negative work climate (González-Morales, Peiró, Rodríguez, & Bliese, 2012).

Underutilization of job resources. Job resources are aspects of a job that assist an individual in meeting job demands and goal achievement (Bakker & Demerouti, 2014). Job resources include structural resources and social resources. Structural resources involve crafting job details such as customizing job tasks to better align with individual skills and interest, as well as crafting challenges at works such as increasing work difficulty or seeking opportunities for development to maintain engagement. Employee social resources involve forming relationships with colleagues and supervisors which provide support and feedback. According to research, burnout impacts the perception of job resource availability (Wang, et al., 2016) and was linked to an underutilization of job resources (Baker & Costa, 2014; ten Brummelhuis et al. 2011; Tims,
Bakker, & Derks, 2012). Additionally, it has been suggested that those who underutilize job resources are less likely to participate in decision making and are less likely to have access to job information (Bakker & Costa, 2014). It has been hypothesized that burnt out individuals are not engaged, motivated or have enough energy to mobilize their job resources and may be less open to adapting new approaches to job tasks (Bakker, Van Der Zee, Lewig, & Dollard 2006; Sandström et al., 2011).

**Diminished work performance.** Research suggests that burnout is negatively associated with job performance (Bakker, Demerouti, & Sanz-Vergel, 2014; Swider and Zimmerman 2010; Taris, 2006). The relationship between burnout and job performance has been extensively researched in populations of medical students and practicing physicians. For instance, West, Shanafelt, Kolars (2011) research indicated that students that had higher scores on emotional exhaustion had lower scores on standardized tests measuring medical knowledge, this magnitude of effect is the equivalent of one year of residency training. They also found that burnt out medical residents retained less medical knowledge than their peers in training. Research also illustrates that burnout impacts patient safety, perceived medical mistakes and overall physician quality of care (Dyrbye, et al., 2011; Firth-Cozens, Greenhalgh, 1997; Grol et al., 1985; Gundersen, 2001; Haas et al., 2000; Shanafelt, Bradley, Wipf, Back, 2002; Shanafelt et al., 2010; Shanafelt, Sloan, Satele, Balch, 2011; Shanafelt et al., 2014; Spickard, et al, 2002; Suner-Soler, Grau-Martín, Flichtentrei, Prats, Braga, Font-Mayolas, & Gras, 2014; Wallace et al., 2009; West et al., 2006; West, Tan, Habermann, Sloan, Shanafelt, 2009).

One explanation for the association between burnout and diminished job performance is that individuals experiencing burnout are exhausted and lack concentration, which equates to additional time to complete tasks and additional mistakes, which then require additional time to be corrected, which consequentially contributes to additional job demands which are already high (Bakker & Demerouti, 2014; Demerouti, Bakker, and Bulters, 2004). Another explanation argues that the negative emotions that burnt out individuals experience negatively impacts their decision making abilities (Derryberry & Tucker, 1994; Fredrickson, 2001), their likelihood of helping others with work, approaching others for help with work, or receiving help from others, all of which contribute to lower productivity (Bakker et al., 2014; Cacioppo, Gardner, & Berntson, 1999; Swider & Zimmerman, 2010). Finally this relationship may be explained by characteristic traits of burnout such as: withdrawal behaviours including withholding effort, or taking long breaks (Penney & Spector, 2008).
**Work-life conflict.** Numerous studies have reported an association between burnout and work-life conflict (Rubab, 2017; Bakker, Killmer, Siegrist, & Schaufeli, 2000; Frone, Russel, Cooper, 1992; Hakanen et al., 2008; Jassen, Schaufeli, & Houkes, 1999; Karatepe & Uludag, 2008; Maslach, Marek, Schaufeli, 1993; Lee & Ashforth, 1996; Suner-Soler, Grau-Martín, Flichtentrei, Prats, Braga, Font-Mayolas, & Gras 2014). However, much of this research is correlational, so there is no causal evidence as to whether work-life conflict causes burnout or if burnout causes work-life conflict. If burnout is impacting work-life conflict it may be that an employee’s negative mood due to work stress spills over to their personal life creating work-life conflict (Rubab, 2017). Burnout may also causally contribute to work-life conflict, as (Bakker, Demerouti, & Schaufeli, 2005) study found that couples were likely to transfer feelings of burnout to one another, which is likely to contribute to further work-life conflict. Finally, it is hypothesized that burnout may contribute to work-life conflict as exhaustion from burnout may spillover causing an individual to skip certain activities which may bring balance, such as completing household chores, participating in hobbies and spending time with friends or family.

Overall, burnout is a state of workplace ill-being that involves exhaustion, cynicism and reduced professional efficacy (Maslach & Jackson, 1996; Maslach, Jackson, & Leiter, 1996). Burnout is correlated to numerous negative outcomes. Physically, burnout is correlated to cardiovascular disease, dysregulation of the neuroendocrine system, changes in brain structure and low levels of daily energy. Psychologically, burnout is correlated to sleep difficulties, depression, psychotropic medication usage, hospitalization for mental disorders, psychological ill-health symptoms and emotional regulation. Lastly, in terms of work consequences, burnout is correlated to job dissatisfaction, withdrawal behaviours, absenteeism, presenteeism, new disability pension, perception of high job demands, underutilization of job resources, diminished work performance and work-life conflict. Based on this past research, it is hypothesized that a) delayed gratification will be a predictor of burnout as it is expected that individuals scoring high on delayed gratification will focus more on their work than their personal life, and when this is maintained for extended periods of time burnout will ensue and b) work-life conflict will be correlated to career burnout, this correlation has been extensively supported by past literature; thus, the goal of this hypothesis is to replicate past study findings.

**Summary**

The literature review provides a summary of the existing research related to delayed gratification, work-life conflict and career burnout. Additionally, the literature review provides
context and a rationale for examining the hypothesized interconnection between these variables. Lastly, the literature review highlights the importance of conducting this research.

To summarize, past literature suggests the following about delayed gratification, work-life conflict and career burnout. Overall, in the literature there is a general consensus among researchers that delayed gratification is correlated to adaptive outcomes in structured situations, such as work and school. However, research also suggests that delayed gratification is correlated with maladaptive outcomes such as: lower levels of joy, a flatter emotional life, a lack of spontaneity, excessive inhibition, decreased creativity, expressive suppression, decreased physical health, mental health difficulties, the tyranny of “shoulds” and an inability to find life satisfying without a continuous sense of purpose and effort. In terms of work-life conflict, past research indicates that it has negative correlates in three dimensions: a) career outcomes, such as job dissatisfaction, decreased job performance, absenteeism, employee turnover, workplace stress and burnout, b) personal outcomes, such as life dissatisfaction, decreased mental health, depression, substance abuse, decreased physical health and cognitive difficulties and c) interpersonal outcomes, such as marital and family distress. Regarding career burnout, past research indicates that it has negative correlates in these three domains: a) physical outcomes, such as cardiovascular disease, dysregulation of the neuroendocrine system, changes in brain structure, low levels of daily energy and participation in unhealthy behaviours, b) psychological outcomes, such as sleep difficulties, depression, psychotropic medication usage, hospitalization for mental disorders, psychological ill-health symptoms, cognitive dysfunction and emotional dysregulation and c) work-related outcomes, such as job dissatisfaction, withdrawal behaviours, absenteeism, presenteeism, new disability pension, perception of high job demands, underutilization of job resources, diminished work performance and work-life conflict. Overall the research suggests that delayed gratification, work-life conflict and career burnout have numerous negative correlates.

The literature review provides context and a rationale for examining the hypothesized interconnection. Combining past research from this literature review, this research uniquely hypothesizes that delayed gratification will be a predictor of a) work-life conflict and b) career burnout. It is also hypothesized that work-life conflict will be positively correlated to career burnout, this correlation has been extensively supported by past literature; thus, the goal of this hypothesis is to replicate past study findings. The literature review provides a reasonable foundation for why delayed gratification may have negative correlates in a career context. The
literature review indicates that delayed gratification is correlated to adaptive and maladaptive correlates, thus it is reasonable to hypothesize that delayed gratification, may have other negative correlates that have not yet been explored, such as the variables of interest for this study, work-life conflict and career burnout. Secondly, the literature review provides a conceptual rationale for the hypothesized positive correlation between delayed gratification and a) work-life conflict and b) career burnout. Based on past literature and theory it is rationalized that individuals who score high on delayed gratification will be more likely to focus and invest their time in their work role compared to their family and leisure role, contributing to work-life conflict and when maintained for extended periods of time, career burnout. Overall, the literature review provides context and a rationale for the hypothesized positive correlation between delayed gratification and a) work-life conflict and b) career burnout.

Lastly, the literature review highlights the importance of understanding the relationship between delayed gratification, work-life conflict and career burnout. As indicated in the literature review, both work-life conflict and career burnout have extensive and robust negative correlates across multiple facets of an individual’s life. This research highlights the importance of understanding the predictors of work-life conflict and career burnout, such as the uniquely hypothesized predictor of this study, delayed gratification. Furthermore, understanding the relationship among these variables is important as it will provide empirical research required for creating effective interventions for work-life conflict and career burnout. More specifically, if delayed gratification is a predictor of work-life conflict and career burnout, the results will provide a clearer understanding of the driver of these concepts. The results would also provide an empirical basis for creating targeted delayed gratification interventions, to alleviate work-life conflict, career burnout and indirectly the many other negative correlates associated with both. Overall, the literature review illuminates the importance of conducting this research.
CHAPTER 3: METHODOLOGY

The present study used a quantitative methodology to explore the relationship between delayed gratification, work-life conflict and burnout in a general adult working population. A quantitative method of analysis is deemed most appropriate to explore the main research questions of this study: What is the relationship between delayed gratification and work-life conflict? What is the relationship between delayed gratification and career burnout? Is career burnout negatively correlated to work-life balance and positively related to work-life conflict?

Participants

Study participants were recruited through an online advertisement placed on Mechanical Turk. To be included in the study, participants had to be (a) over the age of 21, b) work at least twenty hours per week outside the home for pay. The rationale for this inclusion criteria was to ensure that questions apply to all study participants. Inclusion information was not included in the recruitment material to avoid participants lying about their information to complete the study. Each participant received a two-dollar deposit into their Mechanical Turk account as an appreciation of their participation in the study. This is a sufficient amount for the time the participants spent on the survey but does not coerce individuals to participate who might otherwise not have been interested.

Preliminary analyses of participants’ demographic variables. One hundred and twenty-five participants initially completed the study. However, 36 participants were excluded in total. Thirty-four participants were removed from the study because their responses to the background questionnaire (described below) suggested that they did not work over twenty hours a week outside the home. One participant was removed from the study because they completed the survey twice. One additional participant was excluded because they failed two or more of the validity questions on the survey, suggesting that they were either not paying careful attention to the questions or responding randomly.

The final sample consisted of eighty-nine participants, forty-nine of which are males and forty of which are females. The participants had an average age of 34.6 (SD = 9.3; Min=21; Max=63) and completed on average 16 years of education (SD = 2.8; Min 11; Max 27). The sample consists of 5 students, who spent an average of 16.2 hours per week on schoolwork (SD = 7.8; Min 4; Max 25) and an average of 29.4 hours per week on paid employment (SD = 7.1 ; Min 20; Max 38) and 84 employed individuals who spent an average of 42.3 hours per week on paid employment (SD = 7.5; Min 20; Max 72). The sample consists of 29 individuals who are single,
17 individuals who are dating and living apart, 7 individuals who are dating and living together, 35 individuals who are married or common law and one individual who is separated. Participants in a current relationship, have been with their current partner on average for 7.8 years ($SD = 6.5; \text{Min} = \text{less than one year}; \text{Max}=30$). The sample consists of 29 individuals with an average of 2 children in the household ($SD = 1; \text{Min} = 1; \text{Max} = 5$). Canadian gross annual income average = 63,977.00 ($SD = 31,361.00, \text{Min} = 14,000.00 \text{Max} = 124,000.00$, US gross annual income average = 42,135.00 ($SD = 23,689.00 \text{Min} = 4,626.00 \text{Max} = 140,000.00$). Canadian gross annual household income average = 99,397.00 ($SD = 52,467.00, \text{Min} = 24,000.00 \text{Max} = 205,000.00$, US gross annual household income average = 56,073.00 ($SD = 32,107.00 \text{Min} = 13,000.00 \text{Max} = 145,000.00$).

**Measures**

The following measures were used in the online questionnaire. Please see appendix A for a copy of these measures.

**Background questionnaire.** The background questionnaire was used to gather information about participants' demographic information such as age, gender, ethnicity, education, employment, relationship status, and age of children, and income.

**Delayed Gratification Inventory (DGI; Hoerger, Quirk, & Weed, 2011).** The Delayed Gratification Inventory is a 35-item questionnaire to assess individual differences in the tendency to forgo strong immediate satisfaction to pursue salient long-term rewards. Participants rated their degree of agreement with 35 statements such as “I have tried to work hard in school so that I could have a better future” on a scale from 1 “strongly disagree” to 5 “strongly agree”. The 35-item scale yields delayed gratification scores for five domains (food, physical pleasures, social interactions, money, and achievement), and a 35-item composite score. The achievement subscale and composite scores were used in this study. The achievement subscale scores range from 7-34, a lower score indicates greater difficulty delaying gratification to obtain academic or professional achievement. Composite scores range from 60-152, a lower score indicates greater overall difficulty delaying gratification. The measure demonstrated good internal consistency, as measured by Cronbach’s alpha ($a = .93$), in this study.

**Adapted Work-Family Conflict Scale of Netemeyer, Boles, & McMurrian, 1996 (Waumsley, Houston, Marks (2010).** The Adapted Work Family Conflict Scale is a 5-item questionnaire that assesses how participants’ work impacts their time away from work. Participants rated their degree of agreement with five statements such as “The demands of my
work interfere with my life away from work” on a scale from 1 “strongly disagree” to 7 “strongly agree”. Scores range from 5-35, a high score indicates work-life conflict. In Waumsley, Houston, Marks (2010) article the authors indicate that the word “family” usually denotes a family structure with children and/or a spouse. The article indicates that Netemeyer et al. Work-Family Conflict Scale may not adequately measure the work-life conflict experienced by individuals who do not live within a family structure that involves a spouse or children. Waumsley et al. (2010), adapt the wording of Netemeyer et al. (1996) Work-Family Conflict scale to reflect work-life conflict rather than work-family conflict. For instance, in the article the authors changed the wording from Netemeyer et al.’s (1996) item “The demands of my work interfere with my home and family life” to “The demands of my work interfere with my life away from work”. The second statement is more inclusive of those who do not have a spouse or children. The results from this article indicate that the factor structure of the life scales supported the same two-factor solution as that of the family scales developed and validated by Netemeyer, et al., (1996). Since the results indicate that the Work-Family Conflict measure can be adapted to measure Work-Life Conflict, this study used the adapted measure to be inclusive of those who do not have children or a spouse. This measure demonstrated good internal consistency in this study, as measured by Cronbach’s alpha (a = .94).

**Work-Family Balance Scale (Allen, Herst, Bruc & Sutton., 2000).** This is a 5-item questionnaire that is used to determine participant’s balance between work and family responsibilities. Participants rated their agreement with the 5 statements such as “I am able to balance the demands of my work and the demands of my family” on a scale from 1 “strongly disagree” to 7 “strongly agree”. Scores range from 5-35, a high score indicates work-life balance. Based on the results from Waumsley, Houston, Marks (2010) article, which suggests that the factor structure of the adapted life scales supported the same two-factor solution as that of the family scales developed and validated by Netemeyer, et al., (1996), the wording of this scale was adapted to be more inclusive of participants who do not have children and/or a spouse. For instance, the item “I am able to balance the demands of my work and the demands of my family” was replaced with “I am able to balance the demands of my work and the demands of my life away from work”. The measure demonstrated good internal consistency, as measured by Cronbach’s alpha (a = .89), in this study.

**Copenhagen Burnout Inventory (Kristensen, Borritz, Villadsen & Christensen, 2005).** Two out of three scales were used from the Copenhagen Burnout Inventory. The first
scale, personal burnout, has six items and is used to measure an individual’s state of prolonged physical and psychological exhaustion. Participants rated their agreement with the six items such as “How often do you feel tired?” on a five-point scale from 1 “Never/almost never” to 5 “Always”. Scores for personal burnout range from 6-30, a high score indicates higher personal burnout. The second scale, work-related burnout, has seven items and is used to measure an individuals’ state of prolonged physical and psychological exhaustion related to work. Participants rated their agreement with the seven items such as “Do you feel burnt out because of your work?” the first three items were answered on a five-point scales from 1 “To a very low degree” to 5 “To a very high degree”, where the last four items were answered on a five-point scale from 1 “Never/almost never” to 5 “Always”. Scores for work-related burnout range from 7-35, a high score indicates higher work-related burnout. The third scale, client-related burnout was not used in this study because it is not applicable to participants who do not work with clients. A composite score includes both personal and work-related burnout, scores for composite burnout range from 13-65, a high score indicates higher overall burnout. The measure demonstrated good internal consistency, as measured by Cronbach’s alpha (a = .91), in this study.

**Instructional Manipulation Check (Oppenheimer et al., 2009).** Four items were inserted into the study questionnaires to assess reading attention and to ensure participants are not randomly responding. Participants were presented with questions that instruct a specific response such as “This question is to determine that you are reading and paying attention to the questions. If you are reading this question, please choose “strongly agree” on a scale from “Strongly disagree” to “Strongly agree.”

**Procedure**

Participants were recruited through an online advertisement placed on Mechanical Turk (Appendix A). The advertisement had a description of the study. Participants reviewed the description and those who were interested clicked on the link to the study website. If the participant clicked on the link they were taken to the study letter of information. After reviewing the letter potential participants had the opportunity to provide consent and participate in the study by clicking a consent button. Interested participants were presented with and asked to read a letter of information and consent statement (Appendix B). Participants consented to participate by clicking a "consent" button that appeared below the consent statement (Appendix B). Clicking the consent button indicated that the participant agreed to participate in the study. Feedback was
provided in the form of a response page. The response page appeared after the participant submitted the final page of the survey (please see Appendix D).

Interested participants accessed the study website to complete the computer administered survey online. Participants were then presented with and asked to read a letter of information and then to consent to participate by clicking a “consent” button that appeared below the consent statement. All participants who consented to participate in the study first completed the background questionnaire. Participants then completed all other measures in random order. There was also an instructional manipulation check. Four items were inserted into the study questionnaires to ensure that participants were paying attention and were not responding randomly to study items. For example, participants were presented with questions that instructed a specific response such as “If you are reading this question please choose strongly agree.” After completing the measures, the participants were then presented with a feedback letter.
CHAPTER 4: RESULTS

Descriptive statistics such as minimum, maximum, mean, standard deviation, skewness and kurtosis for all key study measures are presented in Table 1. The correlations between key study variables are listed in Table 2. The correlations that will be tested are depicted in Figure 2.

**Figure 2.** Correlations tested between Delayed Gratification, Work-Life Conflict and Burnout.

**Hypotheses Related to Research Question One: What is the Relationship Between Delayed Gratification and Work-Life Conflict?**

**Hypothesis analysis one: delayed gratification and work-life conflict.** For the first hypothesis, a positive correlation between delayed gratification and work-life conflict was predicted, such that those high on delayed gratification would have higher levels of work-life conflict. Pearson product-movement correlations were computed to assess this relationship, with scores on the a) delayed gratification full scale, b) delayed gratification achievement subscale, and scores on the work-life conflict scale as the dependent variable.

*Delayed gratification full scale score and work-life conflict.* Contrary to predictions, the correlation between the delayed gratification full scale score and the work-life conflict scale was not statistically significant, $r (87) = -.16, \ p = \text{ns}$, two tailed, such that there was no statistically significant relationship between overall level of delayed gratification and level of work-life conflict.

*Delayed gratification achievement subscale and work-life conflict.* Contrary to predictions, the correlation between the delayed gratification achievement scale and the work-life
conflict scale was not statistically significant, \( r (87) = -0.11, p = ns, \) two tailed, such that there was no statistically significant relationship between level of delayed gratification within the achievement domain and level of work-life conflict.

**Hypothesis analysis two: delayed gratification and work-life balance.** For the second hypothesis, a negative correlation between delayed gratification and work-life balance was predicted, such that those high on delayed gratification would have lower levels of work-life balance. Pearson product-movement correlations were computed to assess this relationship, with scores on the a) delayed gratification full scale, b) delayed gratification achievement subscale and scores on the work-life balance scale, as the dependent variable.

**Delayed gratification full scale score and work-life balance.** Contrary to predictions, the correlation between the delayed gratification full scale and the work-life balance scale was statistically significant in the opposite direction that was hypothesized. The results indicate a weak, statistically significant, positive correlation between the two variables, \( r (87) = 0.31, p < 0.01, \) two tailed. A scatterplot summarizes the results (Figure 3). Overall, there was a weak correlation between overall delayed gratification and work-life balance, such that increases in delayed gratification were weakly correlated with increases in work-life balance.

*Figure 3. Relationship between Delayed Gratification Full Scale and Work-Life Balance.*
Delayed gratification achievement subscale and work-life balance. Contrary to predictions, the correlation between the delayed gratification achievement subscale and the work-life balance scale was statistically significant in the opposite direction that was hypothesized. The results indicate a very weak, statistically significant, positive correlation between the two variables, $r(87) = .27, p = .01$, two tailed. A scatterplot summarizes the results (Figure 4). Overall, there was a very weak correlation between delayed gratification achievement subscale and work-life balance, such that increases in delayed gratification in the achievement domain were very weakly correlated with increases in work-life balance.

![Figure 4. Relationship between Delayed Gratification Achievement Subscale and Work-Life Balance.](image)

Hypotheses Related to Research Question Two: What is the Relationship between Delayed Gratification and Career Burnout?

Hypothesis analysis three: delayed gratification and burnout. The third hypothesis, a positive correlation between delayed gratification and burnout was predicted, such that those high on delayed gratification would have higher levels of burnout. Pearson product-movement correlations were computed to assess this relationship, with scores on the a) delayed gratification full scale b) delayed gratification achievement subscale and scores on the a) burnout full scale score, b) personal burnout subscale score, c) work-related burnout subscale score, as the dependent variable.

Delayed gratification full scale score and burnout full scale score. Contrary to predictions, the correlation between the delayed gratification full scale and the burnout full scale was statistically significant in the opposite direction that was hypothesized. The results indicate a
very weak, statistically significant, negative correlation between the two variables, \( r(87) = -0.27, p = .01 \), two tailed. A scatterplot summarizes the results (Figure 5). Overall, there was a very weak correlation between overall delayed gratification and overall burnout, such that increases in delayed gratification were very weakly correlated with decreases in overall burnout.

**Figure 5.** Relationship between Delayed Gratification Full Scale and Burnout Full Scale.

*Delayed gratification full scale score and personal burnout subscale score.* Contrary to predictions, the correlation between the delayed gratification full scale and the personal burnout subscale was statistically significant in the opposite direction that was hypothesized. The results indicate a very weak, statistically significant, negative correlation between the two variables, \( r(87) = -0.22, p < .05 \), two tailed. A scatterplot summarizes the results (Figure 6). Overall, there was a weak correlation between overall delayed gratification and personal burnout, such that increases in delayed gratification were very weakly correlated with decreases in personal burnout.

**Figure 6.** Relationship between Delayed Gratification Full Scale and Personal Burnout Subscale.
**Delayed gratification full scale score and work-related burnout subscale score.**

Contrary to predictions, the correlation between the delayed gratification full scale and the work-related burnout subscale was statistically significant in the opposite direction that was hypothesized. The results indicate a very weak, statistically significant, negative correlation between the two variables, \( r (87) = -0.28, p < .01, \) two tailed. A scatterplot summarizes the results (Figure 7). Overall, there was a very weak correlation between overall delayed gratification and work-related burnout, such that increases in delayed gratification were very weakly correlated with decreases in work-related burnout.

**Figure 7.** Relationship between Delayed Gratification Full Scale and Work-Related Burnout Subscale.

**Delayed gratification achievement subscale score and burnout full scale score.**

Contrary to predictions, the correlation between the delayed gratification achievement subscale and the burnout full scale was not statistically significant, \( r (87) = -0.11, p < \text{ns}, \) two tailed. such that there was no statistically significant relationship between delayed gratification within the achievement domain and level of overall burnout.

**Delayed gratification achievement subscale score and personal burnout subscale score.**

Contrary to predictions, the correlation between the delayed gratification achievement subscale and the personal burnout subscale was not statistically significant, \( r (87) = -0.05, p < \text{ns}, \) two tailed, such that there was no statistically significant relationship between delayed gratification within the achievement domain and personal burnout.

**Delayed gratification achievement subscale and work-related burnout subscale score.**

Contrary to predictions, the correlation between the delayed gratification achievement subscale
and the work-related burnout subscale was not statistically significant, $r (87) = -0.14$, $p < ns$, two tailed, such that there was no statistically significant relationship between delayed gratification within the achievement domain and work-related burnout.


**Hypothesis analysis four: work-life conflict and burnout (replication of past study findings).** For the fourth hypothesis, a positive correlation between work-life conflict and burnout was predicted, such that those high on delayed gratification would have higher levels of burnout. This analysis is a replication of past study findings, as this relationship has been well documented in the literature. Pearson product-movement correlations were computed to assess this relationship, with scores on the work-life conflict scale, and scores on the a) burnout full scale score, b) personal burnout subscale score, c) work-related burnout subscale score, as the dependent variable.

**Work-life conflict scale and burnout full scale.** As predicted, there was a positive correlation between the work-life conflict scale and the burnout full scale. The results suggest a moderate, statistically significant, positive relationship between the two variables, $r (87) = 0.66$, $p < .001$, two tailed. A scatterplot summarizes the results (Figure 8). Overall, there was a moderate correlation between work-life balance and overall burnout, such that increases in work-life conflict were moderately correlated with increases in overall burnout.

![Figure 8. Relationship between Work-Life Conflict Scale and Burnout Full Scale.](image-url)
Work-life conflict scale and personal burnout subscale score. As predicted, there was a positive correlation between the work-life conflict scale and the personal burnout subscale. The results suggest a moderate, statistically significant, positive relationship between the two variables, \( r (87) = .56, p < .001 \), two tailed. A scatterplot summarizes the results (Figure 9). Overall, there was a moderate correlation between work-life conflict and personal burnout, such that increases in work-life conflict were moderately correlated with increases in personal burnout.

![Figure 9. Relationship between Work-Life Conflict Scale and Personal Burnout Subscale.](image)

Work-life conflict scale and work-related burnout subscale score. As predicted, there was a positive correlation between the work-life conflict scale and the work-related burnout subscale. The results suggest a moderate, statistically significant, positive relationship between the two variables, \( r (87) = .67, p < .001 \), two tailed. A scatterplot summarizes the results (Figure 10). Overall, there was a moderate correlation between work-life conflict and work-related burnout, such that increases in work-life conflict were moderately correlated with increases in work-related burnout.

![Figure 10. Relationship between Work-Life Conflict Scale and Work-Related Burnout Subscale.](image)
Hypothesis analysis five: work-life balance and burnout (replication of past study findings). For the fifth hypothesis, a negative correlation between work-life balance and burnout was predicted, such that those high on work-life balance would have lower levels of burnout. This analysis is a replication of past study findings, as this relationship has been well documented in the literature. Pearson product-movement correlations were computed to assess this relationship, with scores on the work-life balance scale, and scores on the a) burnout full scale score, b) personal burnout subscale score, c) work-related burnout subscale score, as the dependent variable.

Work-life balance scale and burnout full scale score. As predicted, there was a negative correlation between the work-life balance scale and the burnout full scale. The results suggest a moderate, statistically significant, negative relationship between the two variables, \( r(87) = -.60, p < .001 \), two tailed. A scatterplot summarizes the results (Figure 11). Overall, there was a moderate correlation between work-life balance and overall burnout, such that increases in work-life balance were moderately correlated with decreases in overall burnout.

![Figure 11. Relationship between Work-Life Balance Scale and Burnout Full Scale.](image)

Work-life balance scale score and personal burnout subscale score. As predicted, there was a negative correlation between the work-life balance scale and the personal burnout subscale. The results suggest a moderate, statistically significant relationship between the two variables, \( r(87) = -.49, p < .001 \) two tailed. A scatterplot summarizes the results (Figure 12). Overall, there was a moderate correlation between work-life balance and personal burnout, such that increases in work-life balance were moderately correlated with decreases in personal burnout.
Figure 12. Relationship between Work-Life Balance Scale Score and Personal Burnout Subscale.

**Work-life balance scale score and work-related burnout subscale score.** As predicted, there was a negative correlation between the work-life balance scale and the work-related burnout subscale. The results suggest a moderate, statistically significant relationship between the two variables, \( r(87) = -.62, p < .001, \) two tailed. A scatterplot summarizes the results (Figure 13). Overall, there was a moderate correlation between work-life balance and work-related burnout, such that increases in work-life balance were moderately correlated with decreases in work-related burnout.

Figure 13. Relationship between Work-Life Balance Scale and Work-Related Burnout Subscale.

Summary

Contrary to predictions, the results suggest a statistically nonsignificant relationship between a) overall levels of delayed gratification, b) levels of delayed gratification within the
achievement domain and work-life conflict, such that there was no statistically significant relationship between delayed gratification and work-life conflict (hypothesis 1). Additionally, contrary to predictions, the results suggest a weak, statistically significant, positive relationship between a) overall levels of delayed gratification, b) levels of delayed gratification within the achievement domain and work-life balance, in the opposite direction than was hypothesized, such that increases in delayed gratification were weakly correlated with increases in work-life balance (hypothesis 2). Furthermore, contrary to predictions, the results suggests a very weak, statistically significant, negative relationship between overall levels of delayed gratification and a) overall burnout b) personal burnout and c) work-related burnout in the opposite direction than was hypothesized, such that increases in delayed gratification were very weakly correlated with decreases in burnout and there was no statistically significant relationship between levels of delayed gratification within the achievement domain and a) overall burnout, b) personal burnout and c) work-related burnout (hypothesis 3). Lastly, as predicted there was a moderate, statistically significant, positive relationship between work-life conflict and a) overall burnout, b) personal burnout and c) work-related burnout, such that increases in work-life conflict were moderately correlated with increases in a) overall burnout, b) personal burnout and c) work-related burnout (hypothesis 4) and a moderate, statistically significant negative correlation between work-life balance and a) overall burnout, b) personal burnout and c) work-related burnout, such that increases in work-life balance were moderately correlated with decreases in a) overall burnout, b) personal burnout and c) work-related burnout (hypothesis 5).
Table 1
**Descriptive Statistics**

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Table 2
**Pearson’s Correlations for Delayed Gratification, Work-Life Balance and Burnout**

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**. Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).
CHAPTER 5: DISCUSSION

The overall objective of this thesis was to empirically investigate the relationship between delayed gratification, work-life conflict and career burnout in a general adult working population. More specifically the main research questions of this research are as follows: 1) What is the relationship between delayed gratification and work-life conflict? 2) What is the relationship between delayed gratification and career burnout? 3) Is career burnout negatively correlated to work-life balance and positively related to work-life conflict? This chapter will discuss this study’s results, outline the theoretical and practical implications, examine the limitations and offer directions for future research.

Theoretical Implications & Explanation of Results

This section will interpret the results from the past section, describe the significance of the findings in relation to past research and identify theoretical implications of this study.

Research question one and two. The first main research question of this study was: What is the relationship between delayed gratification and work-life conflict? The first hypothesis of this study was a positive correlation between delayed gratification and work-life conflict, such that those high on the delayed gratification scale would have higher levels of work-life conflict. Contrary to predictions, the results suggest a statistically nonsignificant relationship between a) overall levels of delayed gratification, b) levels of delayed gratification within the achievement domain and work-life conflict, such that there was no statistically significant relationship between delayed gratification and work-life conflict. The second hypothesis of this study was a negative correlation between delayed gratification (for total scale score and the achievement subscale) and work-life balance, such that those high on the delayed gratification scale would have lower levels of work-life balance. Contrary to predictions, the results suggest a weak, statistically significant, positive relationship between a) overall levels of delayed gratification and b) levels of delayed gratification within the achievement domain and work-life balance, in the opposite direction than was hypothesized, such that increases in delayed gratification were weakly correlated with increases in work-life balance.

The second main research question of this study was: What is the relationship between delayed gratification and career burnout? The third hypothesis of this study was a positive correlation between delayed gratification and overall burnout, such that those high on delayed gratification would have higher levels of burnout. Contrary to predictions, the results suggest a very weak, statistically significant, negative relationship between overall levels of delayed
gratification and a) overall burnout, b) personal burnout, and c) work-related burnout, in the opposite direction than was hypothesized, such that increases in delayed gratification were very weakly correlated with decreases in burnout and there was no statistically significant relationship between levels of delayed gratification within the achievement domain and a) overall burnout, b) personal burnout and c) work-related burnout.

It was reasoned that the predicted associations between delayed gratification, work-life conflict and burnout, related to research question one and two, would be driven by delayed gratifiers willingness to invest time in their academic/professional life at the expense of their personal life. This behaviour was then expected to contribute to work-life conflict and burnout. These findings related to the first and second research question are unexpected as the results are inconsistent, with related literature and theory. Shanafelt (2005; 2008) indirectly indicates that delayed gratification contributes to a loss of work-life balance and career burnout in medical oncology students. More specifically, Shanafelt’s research describes that medical oncology students delayed their current personal gratification, concentrating nearly exclusively on academic and residency with little focus on personal life and coped with the lack of balance by believing they would have better work-life balance in the future when they finished medical school and residency. Shanafelt (2005; 2008) indicates that this strategy and coping style contributes to work-life conflict and when maintained for extended periods of time can contribute to burnout. Furthermore, based on Super’s (1990) life span theory, when an individual highly values and derives their self-identity and self-worth from a role, the more likely they will be to participate and invest in that role. This may lead to a delay of gratification and a delay of time and energy being available for other roles, which may than contribute to work-life conflict and over time, career burnout (Greenhaus & Beutell, 1985; Slan-Jerusalim, & Chen, 2009).

Combining this rationale with previous research, it was expected that delayed gratification would be positively related to work-life conflict and burnout in a general population of working professionals. However, although the hypotheses related to research question one and two has intuitive appeal and is consistent with other findings, the data did not support these hypotheses.

One possible explanation for these findings is that the indirect relationship observed in Shanafelt’s (2005; 2008) study of medical oncology students does not extend to a general working population. A sample of medical oncology students is a highly selective group of individuals, with specific characteristics. For instance, research indicates that physicians have the following characteristics: high achievement orientation, perfectionism, compulsiveness,
difficulty setting boundaries, intellectualization and delayed gratification (Gazelle, Liebschutz, Riess, 2014; Miller & McGowen, 2000; Shapiro, 2017; Spickard, Gabbe, Christensen, 2002; Wallace, Lemaire, Ghali, 2009). These specific characteristics may enable success in medical training and practice as they contribute to a desire to accomplish and willingness to spend substantial amounts of time on academic or professional pursuits. However, these specific characteristics may also increase vulnerability to work-life conflict and burnout. Compared to medical oncology students, a general working population may not possess these characteristics, which contribute to a theorized relationship between delayed gratification, work-life conflict and burnout.

A feasible alternative explanation for these findings is that the relationship between delayed gratification, work-life conflict and burnout may only be observed in populations with high stress and low boundaries between work and personal life. For instance, in populations with high boundaries between work and personal life, there may not be a relationship between delayed gratification, work-life conflict and burnout. These individuals may have limited opportunity to decide to delay or not delay their personal gratification to pursue professional goals as these domains are highly compartmentalized. Thus, the hypothesized relationship between delayed gratification, work-life conflict and burnout may not be observed in individuals with high boundaries between work and life. However, the outline hypotheses may be observed in populations with elevated levels of stress and low boundaries between their academic/professional domain and their personal life, such as graduate students, professors, lawyers, entrepreneurs etc. Perhaps the hypothesized relationship between delayed gratification, work-life conflict and career burnout cannot be generalized to a general working population but rather a subcategory of workers with specific personality or work characteristics.

Another explanation is that individuals with the characteristics that may facilitate the relationship between delayed gratification, work-life conflict and burnout may be less likely to complete online questionnaires due to a limited amount of personal time and their preference to focus on academic and professional pursuits.

Lastly, these results may have occurred because the delayed gratification inventory did not capture the construct of delayed gratification the way this study intended. The delayed gratification assessment yields delayed gratification scores for five domains (food, physical pleasures, social interactions, money, and achievement), and a full-scale score. The full-scale scores and the achievement subscale were used in this study. The full-scale score assesses overall
difficulty with delayed gratification across the six domains and the achievement subscale score assesses delayed gratification to obtain academic or professional achievement. This assessment is highly validated; however, the full-scale score may include domains which are not relevant for this study. Furthermore, the achievement subscale, which is most applicable for the purposes of this study, measures delayed gratification in the achievement domain with items such as “I have tried to work hard in school so that I could have a better future” (Hoerger, Quirk, & Weed, 2011). However, it may not specifically measure how one postpones immediate gratification in their personal domain for long term rewards in their professional domain. Overall, the delayed gratification assessment may not have accurately captured the construct of delayed gratification as this study intended, which may explain why the hypothesized results did not occur.

While the results do not support the hypothesized positive correlation between delayed gratification and a) work-life conflict and b) burnout in a general population, this research uniquely provides a strong theoretical rationale for how delayed gratification may be expressed in a vocational context and why it may contribute to work-life conflict and burnout for individuals with specific personality and/or work characteristics. Based on Super’s (1990) theory, an individual’s behaviour may be guided by the interaction of one’s self-concept and values. More so, Chen (2017) argues that individuals develop and express their career self-concept through work roles, career aspirations and career related behaviours. Combining Super’s theory and related past research, delayed gratification may be an expression of the interaction between one’s career self-concept and career values, or more generally, a reflection of how an individual’s self-concept and life values function in a vocational context. Thus, delaying or not delaying gratification may be an expression of an individual’s career self-concept and career values. When an individual highly values and derives their self-concept from the success of their work role, they will be more likely to participate and invest in work and delay gratification in their family and leisure roles (Greenhaus & Beutell, 1985; Slan-Jerusalim, & Chen, 2009). Adaptatively, this may contribute to success in one’s career, but maladaptively, contribute to lower success in other life roles. Overall, this research provides a strong theoretical rationale for delayed gratification and its potential negative impact on work-life conflict and career burnout in a specific population of individuals, such as those with self-concepts and values highly related to their work role or those with specific personality or work characteristics. This rationale and research will be central for future studies related to these variables.
**Research question three.** The third main research question of this study was: Is career burnout positively related to work-life conflict and negatively correlated to work-life balance? For the fourth hypothesis, a positive correlation between work-life conflict and burnout was predicted, such that those high on delayed gratification would have higher levels of burnout. For the fifth hypothesis, a negative correlation between work-life balance and burnout was predicted, such that those high on work-life balance would have lower levels of burnout. Both analyses are a replication of past study findings, as this relationship has been well documented in the literature. As predicted there was a moderate, statistically significant, positive relationship between work-life conflict and a) overall burnout, b) personal burnout, and c) work-related burnout, such that increases in work-life conflict were moderately correlated with increases in a) overall burnout, b) personal burnout and c) work-related burnout (hypothesis 4) and a moderate, statistically significant negative correlation between work-life balance and a) overall burnout b) personal burnout and work-related burnout, such that increases in work-life balance were moderately correlated with decreases in a) overall burnout b) personal burnout and work-related burnout (hypothesis 5).

These findings are expected and corroborate past research which has examined the association between work-life conflict and burnout. Numerous previous studies have reported an association between work-life conflict and burnout (Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Aryeel, 1993; Bacharach et al., 1991; Bakker & Demerouti, 2008; Bakker, Killmer, Siegrist, & Schaufeli, 2000; Blanch and Aluja, 2012; Burke, 1988; Drory & Shamir, 1988; Dyrbye et al., 2011; Farhadi, Movahedi, Nalchi, Daraei, & Mohammadzadegan, 2013; Frone, Russel, Cooper, 1992; Greenglass & Burke, 1988; Hakanen et al., 2008; Izraeli, 1988; Jassen, Schaufeli, & Houkes, 1999; Karatepe & Uludag, 2008; Kinnunen & Mauno, 1998; Lee & Ashforth, 1996; Lingard, 2004; Maslach, Marek, Schaufeli, 1993; Matsui, Ohsawa, and Onglatco, 1995; Mete, 2014; Montgomery, Panagopolou, de Wildt, & Meenks, 2006; Netemeyer et al., 1996; Rubab, 2017; Sholi, Beshlideh, Hashemi, & Arshadi, 2011; Suner-Soler, Grau-Martín, Flichtentrei, Prats, Braga, Font-Mayolas, & Gras 2014; Wang, Chang, Fu, Wang, 2012; Wang et al., 2012). More specifically, some researchers such as Shirom Melamed, Toker, Berliner, & Shapira (2005) and Bagherzadeh et al., (2016) suggest that work-life conflict is the strongest predictor of burnout. Overall, the results from this study replicate the findings from past research and suggest that work-life conflict is positively correlated to burnout.
Practical Implications

This section will discuss practical implications of this study including workplace implications, personal implications, counselling implications and societal implications.

Workplace implications. The results obtained from this study may be beneficial to work-place administrators and human resource departments, which aim to understand work-life conflict and burnout among their employees. Stress-related illnesses, such as burnout are estimated to cost American businesses between fifty billion and one hundred and fifty billion dollars a year (Hatfield, 1990). Furthermore, research suggests burnout is associated with decreased job performance, absenteeism and turnover, all which contribute to financial loss for businesses (Allen et al., 2000; Bakker & Demerouti, 2014; Demerouti, Bakker, and Bulters, 2004; Bakker, Demerouti, & Sanz-Vergel, 2014; Higgins, Duxbury, & Irving, 1992; Swider and Zimmerman 2010; Taris, 2006; Van der Heijden, Dillingh, Bakker, & Prins, 2008; Yavas, et al., 2008). Thus, it is in the best interest of employers to use the results from this study, which highlight the importance of reducing employee work-life conflict and burnout to instill an understanding of these concepts and develop interventions to prevent them. This will ultimately increase business revenue and employee well-being.

Employers may want to consider incorporating the following strategies in their workplace to decrease work-life conflict and burnout. Firstly, facilitating a workplace with supportive supervisors and coworkers and flexible and predictable work schedules is linked to lower work-life conflict and burnout (Byron, 2005; Keeton, Fenner, Johnson, 2007). Research also suggests a relationship between decreased levels of burnout and servant leadership characterized by stewardship, empowerment, and accountability (Babakus, Yavas, Ashill, 2010). Increasing work engagement is also an effective method to reduce employee burnout (Schaufeli & Bakker, 2004). Work engagement can be increased, and thus indirectly decrease burnout, through job crafting, which involves customizing aspects of a job to improve the fit between a job and an individual’s values, interests, personality or skills (Berg, Dutton, & Wrzesniewski, 2010; Tims, Bakker and Derks (2013). This may include crafting specific employee tasks, the interpersonal relationship they engage in when performing tasks, their environment, or the way they think about their work (Wrzesniewski and Dutton, 2001). Based on the cost of stress related illnesses for businesses, it is in a workplace’s best interest to incorporate strategies to decrease work-life conflict.

Personal implications. The American Psychological Association (2007) reports that about 33% of individuals experience work-life conflict which causes them a significant amount
of stress. Personally, work-life conflict and burnout are correlated to life dissatisfaction, decreased psychological health, decreased physical health, cognitive difficulties, marital distress and family distress (Allen et al., 2000; Aryee et al., 1999; Barling & MacEwen 1991; Dyrbye et al., 2011; O’Driscoll et al., 1992) Thus, in terms of personal implications, individuals may want to consider the following strategies to decrease work-life conflict and burnout. Firstly, engaging in recovery activities, which promote personal well-being is a critical strategy to decrease work-life conflict and burnout. Recovery activities include participating in self-care, low-effort activities, personal interests, physical activities, and fostering relationships. These activities facilitate relaxation and psychological detachment from work, which in turn increases future work engagement (Bakker, Demerouti, Oerlemans, & Sonnentag, 2013; Bakker & Costa, 2014; Linzer et al, 2014; Shanafelt, Sloan, Habermann, 2003; Shanafelt, Oreskovich, Dyrbye, Satele, Hanks, Sloan, & Balch, 2012; Ten Brummelhuis and Bakker, 2012; Shanafelt et al., 2015; Quill, Williamson, 1990). Furthermore, while job crafting is an evidence based method to reduce work-life conflict, if this is not possible in a role, an individual may be able to reduce work-life conflict and burnout by adding new satisfying roles to their life, improving the interaction between roles and expanding, increasing or improving the quality of time in an existing satisfying role. (Brown, 1995; O'Driscoll, Ilgen, & Hildreth, 1992). In sum, individuals can personally decrease work-life conflict and burnout by engaging in recovery activities, adding new enjoyable life roles, improving role interactions or expanding, increasing or improving the quality of time in an existing enjoyable role.

**Counselling implications.** Counsellors can facilitate client self-understanding of values, role importance and role conflicts by aiding clients in determining outcome expectations and how to prioritize time and energy when role conflicts arise (Cinamon & Rich, 2002; Perrone & Civiletto, 2004; Quill, Williamson, 1990; Shanafelt, Chung, White, Lyckholm, 2006). Identification, clarification and prioritization of values can be accomplished through a) The Salience Inventory, b) through counselling approaches where clients draw two separate pie charts, one which represents the amount of time currently spent in life roles and another which represents the amount of time they would ideally like to spend in each life role (Perrone et al., 2005), c) through Brown and Brooks counselling approach. While it is important for counsellors to assist in self-understanding, it is also important to understand client role expectations and to help the client realistically negotiate competing roles and facilitate the creation of realistic role expectations, goals and action plans that incorporate individual values, role salience, outcome
expectations and goals (Butler, Gasser & Smart, 2004; Sharf, 2006). Lastly, research suggests that time management skills, coping skills and training in mindfulness-based stress reduction is associated with lower levels of work-life conflict; thus, it would be helpful for counsellors to provide training to clients who struggle with work-life conflict and burnout (Beckman et al., 2012; Byron, 2005; Fortney, Luchterhand, Zakletskaia, Zgierska, Rakel, 2013; Krasner, 2009).

**Societal implications.** Excessive work has been referred by Robinson (2000) as "the best dressed mental health and family problem of the 21st century" (p. 34). Similarly, Porters (2004) indicates that "society supports [excessive work], as it does no other addiction. One might question to what extent [excessive work] has become the new norm, making it even more difficult to determine whether anything in today's model can be labeled excess work" (p. 436). Together these quotes highlight how society valorizes productivity, busyness, and emphasizes the importance of work. The societal acceptance of excessive work deters individuals from forming open dialogues about the negative impact of work-life conflict and burnout and further refutes treatment of a behaviour that is so admired and sought after. Overall, the results from this study further emphasizes the consequences of engrained societal messages, which support excessive work and may contribute to work-life conflict and burnout.

**Limitations**

A limitation of this research is that online questionnaires through Mechanical Turk were employed to gather data. One of the limitations of using self-report measures is that participants may exaggerate their answers, answer in a way to portray themselves positively, forget pertinent details, be biased based on their mood during the survey or may not be fully paying attention to each question. Since participants can complete the questionnaires at their own convenience, they may be distracted by their environment and may not fully pay attention to each item in the questionnaire. However, this limitation has been addressed by incorporating instructional manipulation checks. Four instructional manipulation checks were inserted into the study questionnaires to assess reading attention and to ensure participants were not randomly responding. Participants that made more than one error on the instructional manipulation checks were not included in the data analysis.

Furthermore, since the data was collected through an online sample, there may be reason to believe that the sample’s attitudes and demographic are different than what would be expected from participants from an in-lab sample. However, a number of studies have now demonstrated that Mechanical Turk is a reliable and valid method for conducting psychological research (e.g.,
Paolacci & Chandler, 2014; Peer, Vosgerau, & Acquisti, 2014; Rouse, 2015). In fact, the sample characteristics of Mechanical Turk is more diverse (in terms of age, education, socioeconomic status, and ethnic composition) than college samples, another group that is frequently recruited for psychological research (Rouse, 2015).

**Future Direction**

This research furthers the literature which supports a relationship between work-life conflict and burnout. Thus, it is important for future researchers to extend these findings to identify further evidence-based interventions to address work-life conflict and other correlates of burnout.

Although past research has indicated an indirect relationship between delayed gratification, work-life conflict and career burnout in a sample of medical students, the relationship did not exist in a general working population. Thus, in the future it would be valuable to examine if a relationship between delayed gratification, work-life conflict and burnout exists for a certain subgroup of participants. More specifically, it would be beneficial to examine if this relationship would occur in populations with particular personal or work characteristics. Individuals with personal characteristics that would be of interest are high achievement orientation, perfectionism, compulsiveness and boundary setting difficulties, which may allow for success in the professional domain, at the detriment of work-life balance, potential burnout and overall personal wellness. Individuals with work characteristics such as high stress and/or low boundaries between work and personal life, which may be seen in graduate students, professors, lawyers, entrepreneurs etc. will be of interest to future researchers.

If the results from future studies identify that particular groups experience a relationship between delayed gratification, work-life balance and burnout, it would be beneficial to assess the effectiveness of interventions that alleviate this relationship. Interventions may include psychoeducation about:

a) adaptive response variability, which involves the ability to flexibly decide when it is ideal to delay gratification and when it is advantageous to seek immediate gratification based on whether expected outcomes align with one’s sense of self and understanding of personal interests, values, goals and definition of gratification. This response may facilitate an optimal balance which provides success of delayed gratification and enjoyment of the present.
b) The importance of maintaining work-life balance and personal well-being. This may include exercising, healthy eating, regular sleep, allocating time for hobbies, self-care and friends and family. Maintaining these aspects also supports academic and professional success.

c) The eternal staircase of delayed gratification. It may be important to provide information about how one may unknowingly become entrapped in a cycle of delayed gratification, where goal achievement creates only brief, or worse, no gratification at all, as one focuses instead on subsequent goal attainment.

In sum, for future research, it will be beneficial to study further evidence-based interventions for work-life conflict and burnout and examine this study’s hypothesized relationship in a sample of individuals with particular personality and work characteristics.

**Conclusion**

The present study sought to explore the overarching research question: what is the relationship between delayed gratification, work-life conflict and career burnout in a general adult working population? A sample of eighty-nine participants completed an online questionnaire. The results suggest a) a statistically nonsignificant relationship between delayed gratification and work-life conflict, b) a very weak, statistically significant, negative relationship between delayed gratification and burnout c) a moderate, statistically significant, positive relationship between work-life conflict and burnout. This research has important theoretical and practical implications for employers, individuals experiencing work-life conflict and burnout and counsellors who have clients experiencing these difficulties. Future research should explore if groups with certain personality traits or work characteristics have an association between delayed gratification, work-life conflict and burnout.
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APPENDIX A: RECRUITMENT MATERIALS

Hello,

The Department of Applied Psychology and Human Development at the Ontario Institute for Studies in Education, University of Toronto is looking for volunteers to take part in a study called The Relationship Between Delayed Gratification, Work-Life Balance, and Burnout.

Participation in this study includes completing a number of anonymous online questionnaires about your level of delayed gratification, your work-life balance and your level of burnout. Your participation would involve 1 session of approximately 20 minutes. In appreciation for your time, you will receive a $2.00 deposit into your Mechanical Turk account.
To volunteer for this survey please click on the link below:

LINK HERE

For more information about this study please contact: Dr. Charles Chen at cp.chen@utoronto.ca or Brittany Shields at brittany.shields@mail.utoronto.ca.
APPENDIX B: INFORMATION LETTER AND INFORMED CONSENT

Study Information Sheet and Consent Form

Project Title: The Relationship Between Delayed Gratification and Work-Life Balance and Career Burnout.

Short Title: Delayed Gratification, Work-Life Balance & Burnout

Study Investigators:
Brittany Shields  
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Charles Chen  
Professor, Department of Applied Psychology and Human Development  
Ontario Institute for Studies in Education, University of Toronto  
Toronto, ON Canada  
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Purpose
You are invited to participate in a research study called The Relationship Between Delayed Gratification, Work-Life Balance, and Burnout at The University of Toronto. The purpose of this study is to better understand how an individuals’ level of delayed gratification impacts work-life balance and career burnout.

Task Requirements
If you choose to participate, the study will consist of completing online survey where you will be asked a number of questions about your level of delayed gratification, work-life balance and career burnout. Completing the study will take approximately twenty minutes.

Compensation
In appreciation for your time, you will receive $2.00 deposited to your Mechanical Turk account.

Risks and Benefits
If you decide to participate, it is expected that the risks are minimal. The potential risks are that participating in the survey may lead you to think about your delayed gratification, work-life balance and/or burnout in a way you may not have otherwise done and consequently you may experience some negative feelings about yourself and your delayed gratification, work-life balance and/or burnout. If you are uncomfortable with any question during the survey you may decline to answer. Additionally, you may decide to stop participating at any time without penalty.

Participating in this study may provide you with an opportunity to reflect on your level of delayed gratification, work-life balance, and burnout, allowing you to identify and clarify your
related feelings. Your participation in this study will also contribute to the career psychology, industrial-organizational psychology and delayed gratification literature and expand our understanding of the relationship between delayed gratification, work-life balance, and career burnout.

Confidentiality
The responses that you provide will be kept confidential and anonymous (i.e., your name and email address will not be associated with your responses in any way). However, there are limits to confidentiality as stipulated by law. This survey will not ask you for any identifying information and data will be presented (i.e., published in academic journals and/or presented at research conferences) in aggregate form (i.e., no individual responses will be presented). This survey is run through Qualtrics, a company whose computer servers are located in the USA. Consequently, USA authorities under provisions of the Patriot Act may access this survey data. If you prefer not to submit your data through Qualtrics, you should not participate in this study. Data will be stored for seven years on secured Qualtrics servers.

Right to Withdraw
Participation in this study is entirely voluntary. You may refuse to participate in this study at any time without penalty. Additionally, if you request to have your data withdrawn from the study following completion of the surveys all your corresponding data will be destroyed until the time of data analysis, which is expected to begin February 2018.

Questions
If you have any questions or concerns regarding the study or would like to know the results of the study, which are expected to be available August 2018, please contact Brittany Shields at brittany.shields@mail.utoronto.ca or Charles Chen at cp.chen@utoronto.ca. You may also contact The Research Oversight and Compliance Office, at 416-946-3273 or ethics.review@utoronto.ca.

Informed Consent
By clicking the button below, you indicate that you understand your rights as a participant and consent to participate in this research.

With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

"I agree to participate." (please click radio button)
"I do not wish to participate." (please close your web browser now)
APPENDIX C: COPY OF QUESTIONNAIRE

Background Questionnaire

This questionnaire asks you to provide information about your background. We collect this information so that we can understand and describe the overall characteristics of our study participants in publications and academic presentations (e.g., average age, average number of years married, proportion of participants belonging to each ethnic group, etc.).

1. Age:

2. Gender:
   □ Male
   □ Female

3. What are the ethnic or cultural origins of your ancestors?
   □ Aboriginal
   □ African
   □ Central Asia
   □ East Asia
   □ European
   □ North Asia
   □ South Asia
   □ Southeast Asia
   □ Western Asia
   □ Other: __________________

4. How many years of education have you completed (starting from grade 1)? ______

5. What type of education do you have?
   □ No high school
   □ Some high school
   □ Completed high school
   □ Some college/university
   □ Completed college/university
   □ Some graduate school
   □ Graduate degree

6. Are you currently a student?
   □ Yes
   □ No

Please note, if question 6 is answered YES, participants should be presented with questions 7 to 12, but skip questions 13 to 15. If question 6 is answered NO, participants should skip questions 7 to 12 and be presented with questions 13 to 15. All participants should then complete the remaining questions.
7. Are you registered as a full time or part time student?
   □ Full Time
   □ Part Time

8. What type of program are you registered in?
   □ College program
   □ University undergraduate degree
   □ University graduate degree

9. How many hours do you spend on schoolwork (including all unpaid program and course related requirements) on average per week? ____

10. How many hours do you spend on school-related paid employment (e.g., teaching assistantships, research assistantships, paid co-op positions) on average per week? ____

11. How many hours do you spend working in a job(s) unrelated to your school program on average per week? ____ or □ N/A – I do not hold a job unrelated to my school program.

12. If you hold a job unrelated to your school program, what is your job title?

13. Are you presently employed outside of your home for pay?
   □ No, I am unemployed
   □ No, I am a temporary/seasonal worker
   □ No, I am retired
   □ Yes, full time
   □ Yes, part time

14. How many hours do you spend working in paid employment across all of your jobs on average per week? ______

15. What is your job title(s) ? __________________________________________

16. What is your current relationship status?
   □ Single
   □ Dating and living apart
   □ Dating and living together
   □ Married or Common-law
   □ Separated

17. What is your partner’s gender?
   □ Male
   □ Female
□ N/A – I do not currently have a partner

18. How many dependents do you have: ________

19. Please describe the characteristics of your children in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Age</th>
<th>Does this child live in your home at least 50% of the time?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child 1</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Child 2</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Child 3</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Child 4</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Child 5</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Child 6</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Child 7</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Child 8</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Child 9</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Child 10</td>
<td>□ Male □ Female</td>
<td>______</td>
<td>□ Yes □ No</td>
</tr>
</tbody>
</table>

20. What is your gross (before taxes) annual income?
   - □ CAN$ 
   - □ US$ 

21. What is your household’s gross (before taxes) annual income?
   - □ CAN$ 
   - □ US$ 

**Delayed Gratification Inventory**  
(Hoerger, Quirk & Weed, 2011)

Read each of the following statements. Rate how well each statement describes you, using the following 5-point scale.

1 | 2 | 3 | 4 | 5  
---|---|---|---|---
**Strongly Disagree** | **Somewhat Disagree** | **Neutral** | **Somewhat Agree** | **Strongly Agree**

1. I can resist junk food when I want to.
2. I am able to control my physical desires.
3. I hate having to take turns with other people. *
4. When I am able to, I try to save away a little money in case an emergency should arise.
5. I worked hard in school to improve myself as a person.
6. I would have a hard time sticking with a special, healthy diet. *†
7. I like to get to know someone before having a physical relationship.
8. Usually I try to consider how my actions affect others.
9. It is hard for me to resist buying things I cannot afford. *
10. I have tried to work hard in school so that I could have a better future.
11. If my favorite food were in front of me, I would have a difficult time waiting to eat it.*
12. My habit of focusing on what “feels good” has cost me in the long run.*
13. I think that helping each other benefits society.
14. I try to spend my money wisely. †
15. In school, I tried to take the easy way out. *
16. It is easy for me to resist candy and bowls of snack foods.
17. I have given up physical pleasure or comfort to reach my goals. †
18. I try to consider how my actions will affect other people in the long-term. †
19. I cannot be trusted with money. *†
20. I am capable of working hard to get ahead in life.
21. Sometimes I eat until I make myself sick.*
22. I prefer to explore the physical side of romantic involvements right away.*
23. I do not consider how my behavior affects other people. *†
24. When someone gives me money, I prefer to spend it right away. *
25. I cannot motivate myself to accomplish long-term goals. *†
26. I have always tried to eat healthy because it pays off in the long run. †
27. When faced with a physically demanding chore, I always tried to put off doing it. *†
28. I value the needs of other people around me.
29. I manage my money well.
30. I have always felt like my hard work would pay off in the end. †
31. Even if I am hungry, I can wait until it is meal time before eating something.
32. I have lied or made excuses in order to go do something more pleasurable. *
33. There is no point in considering how my decisions affect other people. *
34. I enjoy spending money the moment I get it. *
35. I would rather take the easy road in life than get ahead. *

* indicates reverse-coded item.
† indicates inclusion on DGI-10 short form composite.
Adapted Work-Family Conflict Scale of Netemeyer Boles, & McMurrian, 1996
(Waumsley, Houston, Marks, 2010)

Rate the degree to which you agree or disagree with the following statements.

1. The demands of my work interfere with my life away from work.
2. The amount of time my job takes up makes it difficult to fulfil other interests.
3. Things I want to do at home do not get done because of the demands of my job.
4. My job produces strain that makes it difficult to fulfil other responsibilities and duties.
5. Due to work, I have to make changes to my plans for activities away from work.
Work-Family Balance Scale
(Allen, Herst, Bruck, & Sutton, 2000)

Rate the degree to which you agree or disagree with the following statements.

<table>
<thead>
<tr>
<th></th>
<th>1: Strongly Disagree</th>
<th>2: Disagree</th>
<th>3: Slightly Disagree</th>
<th>4: Neither Agree nor Disagree</th>
<th>5: Slightly Agree</th>
<th>6: Agree</th>
<th>7: Strongly Agree</th>
</tr>
</thead>
</table>
1. I am able to balance the demands of my work and the demands of my life away from work.
2. I am satisfied with the balance I have achieved between my work life and my life away from work.
3. I believe that my work and away from work lives are out of balance.
4. I balance my work and away from work responsibilities so that one does not upset the other.
5. I experience a high level of work-life balance.
Copenhagen Burnout Inventory  
(Kristensen, Borritz, Villadsen & Christensen, 2005)

Indicate how often each statement occurs.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never/almost never</td>
<td>Seldom</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
</tbody>
</table>

1. How often do you feel tired?
2. How often are you physically exhausted?
3. How often are you emotionally exhausted?
4. How often do you think: “I can’t take it anymore’’?
5. How often do you feel worn out?
6. How often do you feel weak and susceptible to illness?

Rate the degree to which you agree or disagree with the following statements.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a very low degree</td>
<td>To a low degree</td>
<td>Somewhat</td>
<td>To a high degree</td>
<td>To a very high degree</td>
</tr>
</tbody>
</table>

7. Do you feel worn out at the end of the working day?
8. Are you exhausted in the morning at the thought of another day at work?
9. Do you feel that every working hour is tiring for you?

Indicate how often each statement occurs.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never/almost never</td>
<td>Seldom</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
</tbody>
</table>

10. Do you have enough energy for family and friends during leisure time?
11. Is your work emotionally exhausting?
12. Does your work frustrate you?
13. Do you feel burnt out because of your work?
Instructional Manipulation Check
(Oppenheimer et al., 2009)

Four items will be inserted into four of the study questionnaires to check if participants are reading and paying attention to the questions and not randomly responding.

1. This question is to determine that you are reading and paying attention to the questions. If you are reading this question, please choose “Strongly agree”.

2. If you are reading this question, please choose “Strongly disagree”

3. Please choose “Slightly disagree” to show that you are reading carefully.

4. Please choose “Always” to show that you are reading carefully.
APPENDIX D: FEEDBACK FORM

Feedback Form

Project Title: The Relationship between Delayed Gratification and Work-Life Balance and Career Burnout.

Short Title: Delayed Gratification, Work-Life Balance & Career Burnout

Study Investigators:
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(416) 978-0718

Thank you for participating in this research study!

The purpose of this study is to better understand how an individuals’ level of delayed gratification impacts work-life balance and career burnout.

Once again, we would like to remind you that the responses that you provided will be kept completely confidential and anonymous (i.e., your name and email address will not be associated with your responses in any way). However, there are limits to confidentiality as stipulated by law. This survey did not ask you for any identifying information and data will be presented (i.e., published in academic journals and/or presented at research conferences) in aggregate form (i.e., no individual responses will be presented). This survey is run through Qualtrics, a company whose computer servers are located in the USA. Consequently, USA authorities under provisions of the Patriot Act may access this survey data. Data will be stored for seven years on secured Qualtrics servers.

Participation in this study is entirely voluntary. You may refuse to participate in this study at any time without penalty. Additionally, if you request to have your data withdrawn from the study following completion of the surveys all your corresponding data will be destroyed until the time of data analysis, which is expected to begin February 2018.

If you have any questions or concerns about your participation in this study or would like to know the results of the study, which are expected to be available August 2018, please contact Brittany Shields at brittany.shields@mail.utoronto.ca or Charles Chen at cp.chen@utoronto.ca. You may also contact The Research Oversight and Compliance Office, at 416-946-3273 or ethics.review@utoronto.ca.