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The Career Beliefs of Post-Secondary Student Seeking Career Counselling

by

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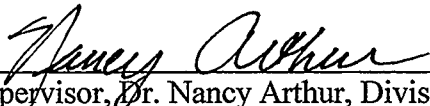
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "The Career Beliefs of Post-Secondary Students Seeking Career Counselling" submitted by Trina Louise Roll in partial fulfillment of the requirements for the degree of Master of Science.



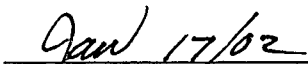
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ABSTRACT

Career beliefs can include both negative beliefs, potentially interfering with the career decision-making process, and positive beliefs, potentially enhancing the career choice process. The present study explored the role of career beliefs reported by undergraduates involved in the career decision-making process through examining negative career thinking, career decision self-efficacy, and multidimensions of perfectionism.

A sample of 76 undergraduate students involved in the career counselling process completed the Career Thoughts Inventory, Career Decision Self-Efficacy Scale, and the Almost Perfect Scale-Revised. This investigation found undergraduates involved in the career decision-making process to have moderately high levels of negative career thinking as well as moderate levels of career decision self-efficacy. The majority of this sample was identified as nonperfectionists, however, of those identified as perfectionists the majority were considered maladaptive as opposed to adaptive. Adaptive perfectionists were found to have significantly greater positive beliefs, indicated by lower negative career thinking and higher career decision self-efficacy, than the nonperfectionists.

These results confirm the importance of examining career beliefs in undergraduates' career decision-making process. The findings emphasize the importance for career counsellors to identify both the negative and positive beliefs involved in the process, as well as to consider the role of perfectionism in career development.

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TABLE OF CONTENTS

Approval Page	ii
Abstract	iii
Acknowledgements	iv
Table of Contents	v
List of Tables	viii
List of Figures	ix
 CHAPTER ONE: INTRODUCTION.....	 1
The Current Study	6
 CHAPTER TWO: LITERATURE REVIEW	 9
The Conceptualization of Career Beliefs	9
Types of Career Beliefs	11
Self and world-view generalizations	11
Career myths	12
Negative career thinking	13
Perspectives on the Impact of Career Beliefs	14
The Conceptualization of Career Self-Efficacy	16
Career Self-Efficacy	16
Previous Applications of Career Self-Efficacy	18
Self-efficacy influencing post-secondary students	18
Self-efficacy and gender	20
Career Decision Self-efficacy	21
The Conceptualization of Perfectionism	23
Definition of Perfectionism	23
Perspectives on the Impact of Perfectionism	25
Performance behaviours	26
Cognitive mediators	28
Psychological distress	28
Positive adjustment	30
Perfectionism and Gender	32
Perfectionism and Self-Efficacy	33
Perfectionism and Career Development	35
Summary	36
Research Questions	37
 CHAPTER THREE: METHOD	 39
Research Design	39
Research Participants	39
Procedure	41
Instrumentation	42
Career Decision Self-Efficacy Scale-Short Form	42
Reliability of the CDMSE-SF	43
Validity of the CDMSE-SF	44

The Almost Perfect Scale-Revised	45
Reliability of the APS-R	46
Validity of the APS-R	46
Career Thoughts Inventory	47
Reliability of the CTI	48
Response set bias of the CTI	49
Validity of the CTI	49
Summary	50
Research Questions with Associated Analyses	51
CHAPTER FOUR: RESULTS	54
Research Question 1	54
Negative Career Thinking of Post-Secondary Clients.....	55
Career Decision Self-Efficacy of Post-Secondary Clients.....	56
Perfectionism in Post-Secondary Clients	57
Research Question 2	58
Gender and Age on Career Thinking and Self-Efficacy.....	58
Gender and Age on Perfectionism	60
Research Question 3	62
Research Question 4	63
Career Thinking and Perfectionism	63
Career Decision Self-Efficacy and Perfectionism.....	64
Comparisons of Perfectionism with Career Beliefs	66
Perfectionists, nonperfectionists, age	66
Negative career thinking	67
Career decision self-efficacy	69
Summary	70
CHAPTER FIVE: DISCUSSION	72
Main Findings	72
Discussion of Post-Secondary Students' Beliefs	72
Discussion of Post-Secondary Students' Perfectionism	75
Experience of negative career thinking	76
Experience of career decision self-efficacy	77
Discussion of Age and Gender Influences	79
Strengths and Limitations	81
Implications	83
Recommendations for Counselling	84
Future Research	87
Summary	89
REFERENCES	91
APPENDIX A: Participant Information Form	108
APPENDIX B: Information Sheet	109

APPENDIX C: Consent Form	110
APPENDIX D: Career Decision Self-Efficacy Scale-Short Form	112
APPENDIX E: Almost Perfect Scale-Revised	114
APPENDIX F: Career Thoughts Inventory	117

LIST OF TABLES

1	Description of Student Sample	40
2	Means and Standard Deviations of Career Thoughts Inventory	55
3	Means and Standard Deviations of Career Decision Self-Efficacy	57
4	Types of Perfectionism Experienced by Post-Secondary Students Seeking Career Counselling	58
5	Age Groups, Negative Career Thinking, Career Decision Self-Efficacy....	60
6	Post-Hoc Tukey Analysis of Age and Negative Career Thinking	60
7	Chi-Square Values for Types of Perfectionists	61
8	Correlations between Negative Career Thinking, Career Decision Self-Efficacy, and Perfectionism Measures	65
9	Factorial Analysis of Variance for Negative Career Thinking, Perfectionism, Age	67
10	Means, Standard Deviations of Perfectionists' Career Beliefs	68
11	Mann Whitney U Comparisons for Perfectionism Groups and Negative Career Thinking	69

LIST OF FIGURES

1	Interaction between frequency of age groups and two types of perfectionism, perfectionist and nonperfectionist.....	61
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CHAPTER 1

Introduction

Career development has been defined as a series of integrated career decisions over a life span, providing direction to one's career path (Peterson, Sampson, Reardon & Lenz, 1996). The process of decision-making involves determining a career choice, as well as making a commitment and carrying out the actions necessary to implement the choice (Peterson, et al., 1996). When career counselling is sought, clients traditionally work with counsellors to determine interests, aptitudes, skills, personality preferences, and values (Magnusson, 1992; Mitchell & Krumboltz, 1996) to assess their self-knowledge. Career beliefs are another important factor impacting the career decision-making process that should be assessed for their role in clients' ability to take action toward career goals (Mitchell & Krumboltz, 1996).

Career beliefs are defined as thoughts or assumptions about one's abilities and personality that can influence career choice and development, ability to complete educational requirements, or perform specific job duties (Borders & Archadel, 1987). While cognitive approaches to other psychological behaviour has a robust and lengthy history, the impact of cognitions or career beliefs on career decision-making and development is only beginning to be studied. Recent theories of career development have included career beliefs as an integral component to career problem solving (e.g., Lent, Brown & Hackett, 1996; Mitchell & Krumboltz, 1996; Peterson et al., 1996). Career beliefs can be both positive and negative, with positive beliefs influencing people to achieve their career goals, while negative beliefs allow people to act in ways that make sense to them but hinder career goal achievement (Krumboltz, 1994).

Types of career beliefs considered in the literature include self and world-view generalizations, career myths and negative career thinking. Self and world-view generalizations include beliefs about oneself, including evaluating one's own performance and assessing one's interests and values, and generalizations about the environment (Mitchell & Krumboltz, 1996). Career myths are the irrational assumptions or beliefs about oneself and the career development process (Amundson, 1997; Dorn & Welch, 1985; Gysbers & Moore, 1987; Stead & Watson, 1993). Negative career thoughts encompass self and world-view generalizations and can also include myths about the career development process. Therefore, a person can have negative beliefs about themselves, occupations, their decision-making abilities, and about the career problem-solving and development process in general (Sampson, Peterson, Lenz, Reardon & Saunders, 1996).

Negative career beliefs are implicated with various behaviours and emotions of post-secondary students. As Elliott (1995) described, negative beliefs result in underachievement, indecision, and procrastination, while O'Hare (1989) discussed anxiety as the result of negative career beliefs. Sampson et al. (1996) found undergraduates to experience feelings of confusion, anxiety and conflict in relation to negative career thinking. Beliefs have an impact on career behaviours; therefore, the most important part of students' future may be their belief about it (Gelatt, 1989).

Career beliefs also encompass self-efficacy expectations, reflecting belief in one's ability to perform a specific behaviour. Career self-efficacy is the belief in one's ability to pursue and achieve in relation to career-related behaviours (Hackett & Betz, 1981). Self-efficacy is considered a central variable to the development of academic and career

interests of post-secondary students (Lent & Brown, 1996). Students with higher self-efficacy beliefs about their ability to perform specific career tasks, such as success in a job interview, have increased performance abilities. Also, belief in ability to perform tasks in certain interest domains is directly linked to degree of interest in those career areas.

Career decision self-efficacy reflects belief in one's ability to perform the tasks necessary to make a career decision (Taylor & Betz, 1983; Betz & Taylor, 2000). Post-secondary students are often attempting to make career decisions, through the choice of a major or for future occupational choices upon graduation, with these choices being impacted by their career decision self-efficacy. Lower career decision self-efficacy has been associated with increased indecision (Betz, Klein & Taylor, 1996; Betz & Klein Voyten, 1997; Niles & Sowa, 1992; Osipow, Temple, & Rooney, 1993; Taylor & Betz, 1983; Wulff & Steitz, 1996) and lack of career exploration in undergraduates (Blustein, 1989; Luzzo, 1996; Solberg, 1998).

Examining only self-efficacy beliefs of undergraduates within the career decision-making process might be insufficient to the understanding of factors hindering the decision-making process. Borders and Archadel (1987) suggest that core self-beliefs, those beliefs that define life meaning and purpose, underlie self-efficacy and these beliefs may restrict or enhance career options. Therefore, core self-beliefs may work in conjunction with self-efficacy beliefs affecting the outcome of career decision-making behaviour.

Another construct of beliefs that is proposed to influence the career development process is perfectionism. In the perfectionism literature, perfectionism was traditionally

defined as a set of cognitions, characterized by the setting of unrealistic and rigid standards (Burns, 1980). Recent research regarding perfectionism describes the construct as having multiple dimensions, from setting high standards for oneself, having exacting standards prescribed by others for oneself, or the setting of unrealistic standards for significant others (Hewitt & Flett, 1991). Other definitions include dimensions such as concern with mistakes, personal standards, parental expectations, parental criticism, doubting one's actions, order, procrastination, and anxiety (Frost & Marten, 1990; Johnson & Slaney, 1996).

Recently a two-dimensional construct has emerged, suggesting adaptive and maladaptive components to perfectionism (Slaney, Mobley, Rice, Trippi, & Ashby, 2000). Maladaptive perfectionism in undergraduates is associated with underachieving and self-defeating behaviour (Adderholt-Elliott, 1990; Hobden & Pilner, 1995), poorer academic performance (Arthur & Hayward, 1997), procrastination (Flett, Blankstein, Hewitt & Koledin, 1992), psychological distress including suicidal ideation (Adkins & Parker, 1996; Hewitt, Flett & Weber, 1994), fear of negative evaluation (Hewitt & Flett, 1991), and rigidity in thinking and behaviour (Ferrari & Mautz, 1997; Flett, Russ & Hewitt, 1994). Conversely, adaptive perfectionism in undergraduates is associated with achieving good grades and pursuing high ideals and goals (Halgin & Leahy, 1989; Hamachek, 1978; King, 1986; Slaney, Mobley, Rice, Trippi, & Ashby, 2000).

Bringing perfectionistic beliefs into the understanding of career development is important for developing a conceptualization of the types of beliefs that may have a positive or negative implication on career choice. The influence of perfectionism on career choice has been suggested by Slaney, Ashby and Trippi (1995), and examined by

Osborn (1998) supporting a maladaptive component to perfectionism in career development. Only one other study has considered perfectionism in career decision-making, finding perfectionism can hinder the career decision-making process (Leong & Chervinko, 1996). However, an adaptive component to perfectionism has not yet been examined in the career decision-making process.

Gender differences have been associated with certain types of career beliefs, but not others. Gender role socialization leads to gender differences in occupational self-efficacy (Betz & Hackett, 1997), with men having higher self-efficacy for both traditionally male and female occupations, while women having lower self-efficacy for traditionally male occupations (Betz & Hackett, 1981; Matsui, Matsui & Ohnishi, 1991; Williams & Betz, 1994). However, gender differences in career decision self-efficacy are less clear (Taylor & Betz, 1983). Sampson et al. (1996) suggest males and females experience equivalent negative career thinking, however other research implicates gender as a factor for certain types of beliefs (Peng & Herr, 1999). A few studies on perfectionism indicate differences between males and females; suggesting women, more so than men, evaluate their perfectionism to be more negative and distressing (Flett et al., 1992). The types of beliefs men and women experience are an important consideration in understanding what beliefs may be most prevalent and if there are differences in their beliefs when making a career decision.

Understanding how people perceive, appraise and think about career problems useful to career development models and counselling practices (Heppner, 1989). Students with linear ways of thinking view career development as orderly, following universal rules and principles, usually driven by perfectionistic striving and social

constraints (Hudson, 1999). Undergraduates often hold rigid beliefs about themselves and the career decision-making process, frequently looking for career tests and counsellors to have the answer for their career choice (Peng & Herr, 1999; Stead & Watson, 1993). Therefore, helping to broaden the beliefs of undergraduates seeking career counselling and alter previously held rules about career decision-making is important to expanding students' future career options.

The Current Study

As research on career beliefs is still in its early stages, recent investigations need to be replicated and many aspects remain to be investigated. The current study will explore beliefs involved in the career decision-making process by examining negative career thinking, career decision self-efficacy and perfectionism in post-secondary students seeking career counselling. First, this study will attempt to examine the types of negative and positive beliefs that potentially interfere with or enhance the career decision-making process. In doing so, this study hopes to replicate and extend research examining negative career thinking and career decision self-efficacy experienced by students during career counselling. Second, this study will examine the relationship between perfectionism and career beliefs. Specifically, a multidimensional perspective including both adaptive and maladaptive components to perfectionism has not been examined in the career development literature.

It is important to understand and recognize the types of beliefs involved in the career decision-making process for both assessment and career choice behaviour. Different beliefs can interfere at different phases in the career counselling process (Amundson, 1997). Therefore, developing an understanding of the types of beliefs

involved in the career decision-making process can potentially help practitioners to enhance clients' progress toward a career choice.

Knowing what beliefs are involved in career decision-making is important for counsellors who work with undergraduate students. Previous research finds negative career thinking prevalent in undergraduates as well as career clients (Sampson et al., 1996), while career decision self-efficacy has been examined only in undergraduate students (Luzzo, 1996; Taylor & Betz, 1983). Perfectionistic beliefs are also evident in undergraduates, but have not yet been considered in depth in a population of students who are seeking career counselling. This study hopes to enhance previous findings and provide new information regarding career beliefs by considering undergraduates involved in the career decision-making process. Therefore, counsellors working in career development can be prepared to explore those beliefs that potentially interfere, and help to enhance those that foster career choice.

The primary goal of this study is to empirically examine the types of beliefs involved in post-secondary students' career decision-making. A second goal is to specifically examine the relationship between negative career thinking, career decision self-efficacy and types of perfectionism, identified as adaptive, maladaptive or nonperfectionists. An additional goal is to examine whether types of career beliefs, and the relationship among these beliefs, vary with gender and age.

Chapter 2 provides a review of the literature concerning career beliefs, including empirical findings relating negative career thinking, career self-efficacy, and conceptualizations of perfectionism to the career decision-making process. Chapter 3 describes the research methodology, and Chapter 4 presents the results of this research

study. A discussion of important results, possible implications for counselling practice and future research is provided in Chapter 5.

CHAPTER 2

Literature Review

This chapter provides a review of the theoretical and empirical literature in the areas of career beliefs, career self-efficacy and perfectionism. Specifically, career beliefs are conceptualized and defined, followed by a discussion of previous perspectives of the impact of career beliefs on career development. Next, career self-efficacy is defined and previous applications of career self-efficacy are explored in depth. Finally, this chapter reviews definitions of perfectionism and previous implications to post-secondary students, including the impact on post-secondary students' career thoughts and decision-making.

The Conceptualization of Career Beliefs

Career beliefs are the positive and negative thoughts, assumptions, or generalizations people have about themselves, occupations and the career development process (Corbishley & Yost, 1989; Mitchell & Krumboltz, 1996; Peterson, et al., 1996). People's beliefs about themselves and the world of work influence their approach to learning new skills, developing new interests, setting career goals, making career decisions and taking action toward career goals (Amundson, 1997; Barak, Librowsky & Shiloh, 1989; Borders & Archadel, 1987; Krumboltz, 1994; Krumboltz & Vosvick, 1996; Lewis & Gilhousen, 1981; Mitchell & Krumboltz, 1996; Nevo, 1987; Peterson et al., 1996; Stead, Watson & Foxcroft, 1993). According to Mitchell and Krumboltz (1996), career beliefs develop from a combination of a person's genetic endowment, environmental events, task approach skills, and learning experiences. Each of these elements influences the development of accurate and positive beliefs that can help people

set and work toward career goals and inaccurate and negative beliefs that hinder the progress through career decision-making and prevent career goal attainment.

Positive beliefs create positive expectations and reinforce effective problem solving behaviour (Heppner, Reeder & Larson, 1983; Peterson et al., 1996). Positive beliefs help facilitate the career development process (Saunders, Peterson, Sampson & Reardon, 2000) and support post-secondary students to increase career exploration activities (Luzzo, James & Luna, 1996; Strader & Katz, 1990). Positive beliefs are also associated with degree of interest in activities, academic courses and occupational titles (Barak et al., 1989). Fostering positive beliefs has been shown to increase beliefs in control and responsibility for career decision-making (Luzzo et al., 1996).

Although it is important to recognize and validate those positive beliefs that facilitate career development, identification of the negative beliefs interfering with career development is integral to the career counselling process. Negative messages and beliefs often develop from learning experiences and negative messages modelled and provided by significant others (Elliott, 1995; Krumboltz & Jackson, 1993; Mitchell & Krumboltz, 1996; Peterson et al., 1996; Schaefer Enright, 1996). Almost everyone has some false or misleading beliefs that can negatively impact their career development (Corbishley & Yost, 1989; Mitchell & Krumboltz, 1996). These negative, self-doubting, beliefs allow for people to act in ways that make sense to them but ultimately hinder their career development process. A single faulty belief can create an immobilizing effect on the acquisition of knowledge and the progress through the career decision-making process (Peterson et al., 1996), having an impact on clients' actions at any stage of career counselling (Amundson, 1997). Raising awareness of beliefs is as important as knowing

one's interests, aptitudes, values, and occupational information since these elements are of little value if a client cannot put them into realistic perspective (Lewis & Gilhousen, 1981). Therefore, it is important to develop awareness of what beliefs interfere with the career development process and how these negative beliefs impact the career decision-making process.

Types of Career Beliefs

Self and world-view generalizations. The literature identifies various types of beliefs that influence the career development process. Specifically, Mitchell and Krumboltz (1996) identified self-observation generalizations, meaning people develop beliefs about themselves, evaluating their own actual or vicarious performance, and assessing their own interests and values. These authors also identified world-view generalizations, meaning people develop generalizations about the environment in which they live, using these generalizations to predict future events. Mitchell and Krumboltz (1996) suggest both self and world-view beliefs are important components to career behaviours such as applying for jobs, school or training programs, seeking promotions, and changing jobs or majors. They also suggest that almost everyone has some beliefs that are false or misleading, negatively impacting career development. Self-observation and world-view generalizations are considered learned, therefore, are changeable through new learning experiences (Krumboltz & Jackson, 1993; Mitchell & Krumboltz, 1996). As career behaviours are cognitively mediated, they can be changed through new learning experiences (Keller, Biggs & Gysbers, 1982; Krumboltz, 1994; Krumboltz & Jackson, 1993; Krumboltz & Vosvick, 1996).

Career myths. Another type of belief identified in the literature is the career myth. Career myths are defined as incorrect thoughts or assumptions about the career counselling and decision-making process based on underlying irrational beliefs (Amundson, 1997; Dorn & Welch, 1985; Gysbers & Moore, 1987; Stead & Watson, 1993). While Krumboltz (1983) identified private rules of career decision-making, career myths are often rules developed from external messages received from society or significant others. Career myths can relate to both self-observations and world-view observations. For example, Nevo (1987) identified ten irrational expectations presented in career counselling falling in the areas of myths about vocations, counsellors and tests, oneself, and the decision-making process. Likewise, Stead and Watson (1993) identified four myths prevalent among post-secondary students, including myths about career and aptitude tests, self-esteem, misconceptions of exactitude and anxiety. Career myths are identified as having a negative impact on both the career counselling and career decision-making process (Amundson, 1997; Dorn & Welch, 1985; Lewis & Gilhousen, 1981; Nevo, 1987; Stead & Watson, 1993; Stead et al., 1993).

Although a relationship exists between career myths and career indecision among post-secondary students, research is inconclusive as to the types of myths held by high school and post-secondary students that interfere with the career development process. For example, Dorn and Welch (1985) found high school students rely on only four career myths out of thirteen listed on the Survey of Career Attitudes, concluding more research is needed to determine what myths are held by students when making a career decision. Likewise, Stead et al. (1993) found their four factor Career Myths Scale was not

sufficient in measuring beliefs associated with career indecision, suggesting other beliefs may be associated with career indecision.

Negative career thinking. Another dimension of career beliefs examined in the literature is negative thoughts about the career development process, including thoughts about oneself, the career decision-making process, and occupations (Peterson et al., 1996; Sampson, et al., 1996; Sampson, Peterson, Lenz, Reardon & Saunders, 1998). These negative career thoughts are both broad and specific, relating to oneself and the world of work, therefore encompassing self and world-view generalizations as well as career myths.

Peterson et al. (1996) developed the Cognitive Information Processing approach to career development, concerned with the actual thought and memory processes involved in solving career problems and career decision-making. There are four key assumptions to this model. First, career problem solving involves both affective and cognitive processes. Second, a person's capability to solve a career problem depends on cognitive processes and knowledge. Third, career development involves continual growth and change in knowledge structures about oneself and occupations. Finally, the development of career problem solving skills is accomplished through the enhancement of information processing skills.

Peterson et al. (1996) identify three key domains in career decision-making: the self and occupational knowledge domains, decision-making skills domain, and the executive processing domain. The executive processing domain monitors, guides and regulates the acquisition, storage, and retrieval of self knowledge, occupational knowledge, and decision-making skills and executes cognitive strategies to solve career

problems. These processes are accomplished through the use of metacognitive processes including self-talk.

According to Sampson et al. (1996) negative thinking is evident in the form of negative self-talk. Negative self-talk can be general at the metacognitive level; however, negative thinking is possible across all three career decision-making domains. Therefore, a person can have negative beliefs about themselves, occupations, their decision-making abilities and about the career problem-solving process. Since negative thoughts can impact any level of decision-making, Sampson et al. postulate that negative thinking limits an individual's capacity to learn effective career problem solving skills. Also, people who seek career services may possess negative thoughts to such a degree that their ability to making career decisions is impaired. Although the greater level of negative thinking is associated with a greater difficulty with career decision-making, a single faulty thought can create an immobilizing effect and negatively impact the career decision-making process.

Perspectives on the Impact of Career Beliefs

Ultimately, beliefs have an impact on career behaviours (Amundson, 1997; Gelatt, 1989; Keller, et al., 1982; Krumboltz & Vosvick, 1996; Mitchell & Krumboltz, 1996), emotions and verbal expression (Corbishley & Yost, 1989; Sampson et al., 1996). Elliott (1995) discusses how negative messages or beliefs result in self-doubt, lower self-esteem, underachievement, indecision, procrastination, and unsatisfactory career choice. O'Hare (1989) describes the emotional impact of negative career beliefs. For example, anxiety can inhibit career decision-making and negative beliefs can contribute to the development and maintenance of anxiety surrounding the career decision-making

process. Negative thinking can make a significant contribution to career indecision once emotions such as depression and anxiety are statistically controlled (Saunders et al., 2000). Therefore, negative thinking is a central factor in career decision-making, impacting behaviours and emotions involved in the process.

Negative beliefs are also associated with hindering the movement through, and compromising the effectiveness of, the career problem-solving process (Heppner, et al., 1983; Krumboltz & Jackson, 1993; Sampson et al., 1998). Specifically, there is evidence that self-doubting, negative, thoughts are significantly related to career indecision (Osborn, 1998; Peterson et al., 1996; Saunders et al., 2000; Schaefer Enright, 1996; Stead et al., 1993). Negative thinking has also been associated with confusion about the career decision-making process, anxiety related to committing to a specific career choice, and conflict between the importance of one's own self-perceptions and input from significant others resulting in a reluctance to assume responsibility for decision-making (Sampson et al., 1996). Overall, negative career thinking is directly associated with negative constructs such as neuroticism and vulnerability, and negatively associated with vocational identity, certainty, and knowledge about occupations and training (Sampson et al., 1998).

Career beliefs are noted as important influences in the development of career-related behaviours and are implicated as detriments to problem solving and decision-making. In the next section career self-efficacy is examined as an important belief to the career development process. In the following section perfectionism is considered as a belief having an impact on the career decision-making and problem solving process. The

discussions of self-efficacy and perfectionism provide a background for the specific investigation of career beliefs in this study.

The Conceptualization of Career Self-Efficacy

Bandura (1977) first proposed self-efficacy as an important cognitive determinant to the acquisition and retention of new behaviour patterns. According to Bandura (1977; 1995), self-efficacy refers to belief in people's capabilities to organize and execute actions required to manage situations, with these beliefs influencing how people think, feel, motivate themselves and act. There are four influences upon a person's self efficacy: mastery experiences, vicarious experiences, social persuasion, and physiological and emotional states. Mastery experiences are the most effective way to develop self-efficacy, with successes building up one's personal efficacy. A resilient sense of efficacy develops through experiences in overcoming obstacles. However, failures often undermine personal self-efficacy, which can then lead to less resilience in overcoming those obstacles. Vicarious experiences also affect the development of self-efficacy. For example, social models can have an impact, especially if there is a perceived similarity with the model. A person's self-efficacy can be enhanced through social persuasion from others encouraging that he/she is capable of mastering the activity. Finally, physiological and emotional states, such as interpretations of stress reactions, can influence self-efficacy expectations. Bandura (1995) notes that affective states can have widely generalized effects on beliefs of personal efficacy in diverse spheres of functioning.

Career Self-Efficacy

Hackett and Betz (1981) first proposed self-efficacy's application to career development, suggesting self-efficacy is a cognitive mediator of career related

behaviours. Career self-efficacy is defined as the belief in one's ability to successfully complete tasks related to career choice and development. Career self-efficacy is not a stable trait, but rather a cognitive appraisal of one's capabilities that change over time and with new experiences (Hackett & Watkins, 1995; VanYperen, 1998). Career self-efficacy, if strong, can act as a facilitator of career behaviours or, if weak, a barrier to career development (Betz, 1992; Betz & Hackett, 1997).

Recent career theories include career beliefs, including self-efficacy, as central components to the career development process (Lent, et al., 1996; Mitchell & Krumboltz, 1996; Peterson et al., 1996). Specifically, the social cognitive career theory incorporates self-efficacy as an integral component guiding career behaviour (Brown & Lent, 1996; Lent & Brown, 1996; Lent et al., 1996). Self-efficacy is considered a central variable to the development of academic and career interests, influencing career choice (Lent & Brown, 1996). People narrow their career options because they have been exposed to a restricted range of efficacy building experiences (Hackett, 1995; Hackett & Betz, 1981; Lent & Brown, 1996; Lent et al., 1996). Also, people who overestimate their self-efficacy tend to attempt tasks for which they are ill-prepared, increasing the likelihood of failure and discouragement (Lent & Brown, 1996; Lent et al., 1996).

Self-efficacy beliefs can act as both a moderator to career development and a mediator in career choice behaviour (Betz & Hackett, 1997; Jex & Gudanowski, 1992; Solberg, 1998). Self-efficacy is considered a moderator variable, with self-efficacy beliefs impacting perceptions of threatening situations, creating a positive or negative reaction to the situation depending upon those beliefs. Self-efficacy is also a mediating variable, where performance accomplishments or threatening situations work to increase

or decrease self-efficacy which then lead to positive or negative impacts on career-related behaviours. The degree to which people will raise their self-efficacy through performance depends upon the difficulty of the task, the amount of effort required, the amount of external support, the situational circumstances under which they perform, and the pattern of their previous success and failures (Bandura, Adams, Hardy, & Howells, 1980).

Previous Applications of Career Self-Efficacy

Betz and Hackett (1981) first examined self-efficacy beliefs in relation to career behaviours, finding a difference in women and men's self-efficacy in relation to educational requirements and certain job duties for traditionally female and male-dominated occupations. Specifically, women's level of self-efficacy for traditionally male-dominated occupations was significantly less than their male counterparts. During the past 20 years numerous studies have emerged linking self-efficacy to various career behaviours of post-secondary students, and gender differences in relation to occupational self-efficacy.

Self-efficacy influencing post-secondary students. Career self-efficacy affects students' performance and persistence in career and academic related behaviours (Brown, Lent & Larkin, 1989). Career self-efficacy is a mediator of career behaviour in that perceived previous performance influences levels of self-efficacy, impacting future career performance. For example, Stumpf, Brief and Hartman (1987) assessed students' perception of prior performance of a job interview task associated with their current level of self-efficacy in relation to job interview tasks. These authors found perceived lower performance on interview tasks was associated with increased anxiety and a lower level

of self-efficacy. Also, Betz and Hackett (1987) studied agentic behaviours in relation to creating educational and job opportunities. Students in this study indicated they could perform an agentic response, however, the strength of their perceived self-efficacy was considerably weaker. The discrepancy between thinking one can perform and the belief in one's ability to create educational and job opportunities could potentially impact actual performances of career related behaviours.

Career self-efficacy, in relation to mathematics, is a moderator of students' pursual of science and technically based majors and occupations. While gender differences exist in math self-efficacy, with males having higher self-efficacy for math related tasks, students with stronger math self-efficacy indicate more years of high school math, less math anxiety, and are more likely to chose science based majors (Betz & Hackett, 1983; Lent, Brown, Gover & Nijjer, 1996; Matsui, et al., 1991). Therefore, beliefs about one's ability to perform mathematical tasks may be just as important as math ability in educational and career decisions (Betz & Hackett, 1983).

While self-efficacy influences career related behaviours, self-efficacy beliefs are also linked with career interests. Investigations have examined the link between self-efficacy and various Holland occupational themes. Lenox and Subich (1994) studied the relationship between male and female students' self-efficacy in relation to realistic, investigative, and enterprising interests. These investigators found as level of self-efficacy increased so did level of interest in the realistic and investigative domains, but not for the enterprising domain. Within their student sample a wide range of self-efficacy scores were found for realistic and investigative interests, while a narrower range of self-efficacy was found for enterprising interests, indicating students might find enterprising

tasks more difficult. Since self-efficacy increases along with level of interest in certain interest domains, less conflict might occur in students' in career choice. However, this relationship is not prevalent in all interest domains, suggesting that those interest domains perceived as more difficult may be limited as career options because of lower self-efficacy beliefs.

Betz and Schifano (2000) demonstrated increases in women's confidence in realistic and investigative interest domains through the use of a building and construction intervention. Women with higher interest in realistic and investigative activities increased their level of self-efficacy in relation to realistic and investigative tasks through successful performances related to these domains. Self-efficacy beliefs can be increased through the use of successful performance tasks; interests in these areas also increase through an increase in self-efficacy.

Self-efficacy and gender. Different background experiences associated with gender role socialization leads to gender differences in occupational self-efficacy (Betz & Hackett, 1997). Women's socialization and learning experiences are often such that strong internal barriers develop, such as lower beliefs in ability, therefore restricting the range of career options for women (Betz & Hackett, 1981; Hackett, 1995).

Lower career-related self-efficacy is considered a major factor explaining the under representation of women in traditionally male careers (Betz & Hackett, 1981; 1997). Many studies link gender differences in occupational preferences to self-efficacy expectations. Betz and Hackett (1981) first studied women's and men's occupational preferences, finding differences in women's self-efficacy for traditional and non-traditional occupations. Other studies have replicated this finding, that women have

increased self-efficacy beliefs for only traditionally female occupations, while men report equivalent self-efficacy for both male and female occupations (Matsui, Ikeda & Ohnishi, 1989; Williams & Betz, 1994). Likewise, Wheeler (1983) found differences between male and female occupational preferences in proportion to the number of males working in a particular occupation.

Other gender differences in relation to types of career self-efficacy exist.

Differences in math self-efficacy beliefs have been demonstrated, finding men have a higher level of math self-efficacy than women (Betz & Hackett, 1983; Lent et al, 1996; Matsui, et al., 1991). Also, task specific self-efficacy differences indicate men, more so than women, have higher self-efficacy beliefs for quantitative and physical occupational tasks (Williams & Betz, 1994). Women also have lower self-efficacy for interests in the realistic and investigative occupational domains (Lenox & Subich, 1994). Implications of gender differences in different types of career self-efficacy suggests efficacy beliefs needs to be considered with interests, values, and abilities in the career decision-making process, particularly for women.

Career Decision Self-Efficacy

There is evidence that post-secondary students' level of self-efficacy beliefs is associated with their level of career indecision (Betz, et al., 1996; Betz & Klein Voyten, 1997; Niles & Sowa, 1992; Osipow, et al., 1993; Taylor & Betz, 1983; Wulff & Steitz, 1996). Specifically, Taylor and Betz (1983) developed the career decision self-efficacy scale in order to assess self-efficacy in relation to students' career decision-making behaviour. Those students who indicated feeling more undecided about their career reported less confidence in their ability to complete decision-making tasks. Nonetheless,

students indicated considerable confidence in their ability to perform tasks necessary for effective career decision-making (Betz & Taylor, 2000; Betz et al., 1996; Taylor & Betz, 1983). Likewise, male and female students reported equivalent career decision self-efficacy beliefs (Betz & Taylor, 2000; Betz & Klein Voyten, 1997; Betz et al., 1996; Blustein, 1989; Taylor & Betz, 1983). Unlike other domains of career self-efficacy, the lack of gender difference with career decision self-efficacy beliefs implies gender homogeneity in background experiences related to the development of perceived competencies in career decision-making (Betz & Luzzo, 1996).

Levels of career decision self-efficacy appear to affect career exploration. Lower levels of career decision self-efficacy leads to greater avoidance of career decision-making tasks, while higher career decision self-efficacy leads to increased engagement in exploratory behaviour (Blustein, 1989; Luzzo, 1996; Solberg, 1998). Also, career decision self-efficacy is influenced through career interventions. Feedback from an interest inventory, and use of career resources, can increase levels of students' self-efficacy in making a career decision (Fukuyama, Probert, Neimeyer, Nevill & Metzler, 1988; Luzzo & Day, 1999). Therefore, career decision self-efficacy can act as a mediator in students' career choice process.

Only two studies directly examine the relationship between career decision self-efficacy beliefs and broader career beliefs. Luzzo and Day (1999) found intervention strategies used to increase career decision self-efficacy beliefs also increased students' beliefs that they are personally responsible for their career decision-making and that working hard at making a decision is essential to career satisfaction and success. Likewise, Niles and Sowa (1992) found a significant relationship between beliefs in

willingness to overcome obstacles, explore career options, and career decision self-efficacy. However, lower correlations were found among beliefs in willingness to be flexible in considering career options and career decision-self-efficacy. Borders and Archadel (1987) discuss the importance of examining efficacy expectations but also core self-beliefs, beliefs that define meaning and purpose in life, underlying efficacy statements. Career options may be limited because of a lower self-efficacy; however lower self-efficacy may also be a result of inaccurate self-ratings of one's ability and worth.

Therefore, a consideration of this study will be to examine the relationship between career decision self-efficacy and other career beliefs. Beliefs surrounding personal standards, characterized by perfectionism, and the relationship with self-efficacy are the focus of this study. In the next section of this chapter the nature of perfectionistic beliefs will be discussed, along with their relevance to career planning and decision-making.

The Conceptualization of Perfectionism

Definition of Perfectionism

Traditionally, perfectionism was defined as a network of cognitions, including expectations, interpretation of events, and evaluations of oneself and others, characterized by the setting of unrealistic standards, rigid and indiscriminate adherence to these standards, and equating of self-worth with performance (Burns, 1980). The literature more recently defines perfectionism as a multi-faceted, multidimensional construct including adaptive and maladaptive components. For example, according to White (1985) perfectionism has a cognitive component which includes judgemental self-talk, an

emotional component which includes anger at him/herself and hopelessness to do anything about it, and a behavioural component which has the person performing compulsively or procrastinating. Perfectionism has also been described to be on a continuum from healthy to unhealthy (Frost, Marten, Lahart & Rosenblate, 1990; King, 1986), creating different symptoms and behaviours for individuals with different levels of perfectionism. Perfectionism is also differentiated with the terms normal and neurotic perfectionism (Hamachek, 1978). The difference between normal and neurotic striving for perfection is that normal perfectionism is considered the setting of difficult but realistic goals, while neurotic perfectionism is the setting of, and striving for, unrealistically high goals and requiring superiority in all aspects of behaviour and the fear of critical evaluation (Blatt, 1995; Halgin & Leahy, 1989; Hewitt, Mittelstaedt, & Flett, 1990; Hewitt, Mittelstaedt, & Wollert, 1989).

Research with perfectionism conceptualizes perfectionism as a multidimensional construct. Hewitt and Flett (1991) described perfectionism as having three components: self-oriented, socially-prescribed, and other-oriented, with the difference being to whom the perfectionist behaviour is directed or to whom the perfectionistic behaviour is attributed. Self-oriented perfectionism is described as setting exacting standards for oneself and stringently evaluating and censuring one's own behaviour. Socially-prescribed perfectionism is described as the need to attain standards and expectations perceived to be held by significant others and the belief that others have unrealistic standards for them. Other-oriented perfectionism is the belief and expectations about the capabilities of others, including setting unrealistic standards for significant others. Frost and Marten (1990) also describe perfectionism as multidimensional, having five

components: concern over mistakes, personal standards, parental expectations, parental criticism, and doubting of actions.

More recent research is finding perfectionism to include both maladaptive and adaptive components. A few studies comparing the Hewitt and Flett (1990) and Frost and Marten (1990) definitions of perfectionism identify maladaptive perfectionism as concern over mistakes, doubting of actions, and socially-prescribed perfectionism. Other research identifies adaptive perfectionism as including high personal standards, organization, and functions of self-oriented perfectionism (Blatt, 1995; Dunkley, Blankstein, Halsall, Williams & Winkworth, 2000; Frost & Shows, 1993; Frost, Heimberg, Holt, Mattia & Neubauer, 1993; Rice, Ashby & Slaney, 1998; Slaney et al., 2000). Positive functions of self-oriented perfectionism include achievement striving (Blatt; 1995; Hill, McIntire & Bacharach, 1997). Also, those people who self-identify as perfectionists view their perfectionism as advantageous to goal setting and working hard (Mitchelson & Burns, 1998; Slaney et al., 1995).

In developing a concise definition of perfectionism, Slaney et al. (2000) identify perfectionism as a two dimensional construct including: adaptive perfectionism, the setting of high personal standards for oneself, and maladaptive, conceptualized as the distress related to the perceived discrepancy between the standards set for oneself and actual performance.

Perspectives on the Impact of Perfectionism

Perfectionism is associated with many maladaptive symptoms and behaviours. Anxiety, stress, depression, guilt, procrastination, writing block and study inefficiency are just a few of the behaviours and affects with which perfectionism is linked (Barrow &

Moore, 1983). White (1985) identifies perfectionism as having behavioural, affective and cognitive components and as research has progressed, positive components of perfectionism have emerged in conjunction to the negative aspects. Previous research with post-secondary students focuses on perfectionism's interaction with performance behaviours, cognitive mediators, psychological distress and positive adjustment.

Performance behaviours. Perfectionism is discussed with over-achieving behaviour (Halgin & Leahy, 1989; Hill, McIntire & Bacharach, 1997) and under-achieving behaviour of students (Adderholt-Elliott, 1989; King, 1986). While Halgin and Leahy have discussed perfectionists disguised as high achievers, most of the literature refers to the underachieving quality of people with perfectionistic beliefs. The underachieving aspects of perfectionism described in the literature include fear of failure, procrastination, paralysed perfectionism, all or nothing mindset, and workaholism (Adderholt-Elliott, 1989). Other descriptions of negative behaviours associated with perfectionism include striving for unattainable goals, and rigidity to assimilating new ideas and behaviours (King, 1986). Slaney et al. (2000) suggest the distress associated with perfectionism comes from the perceived discrepancy between standards held and actual performance.

Research links components of perfectionism with negative behaviours such as procrastination, academic performance, indecisiveness and other self-defeating behaviours, suggesting perfectionistic students may be underachieving in many aspects of their lives. Adderholt-Elliott (1990) compared characteristics of people considered risk-takers to those of perfectionists and concluded that perfectionists are not those people enjoying a healthy pursuit of excellence, but are rather staying in the background afraid

to take a risk. Students with perfectionistic tendencies also tend to procrastinate about academic demands (Flett et al., 1992; Frost et al., 1990; Frost & Shows, 1993) and be more indecisive (Frost & Shows, 1993).

Students with perfectionistic beliefs tend to attribute successes and failures differently from their non-perfectionistic counterparts. For example, compared with non-perfectionists, students identified as perfectionists associate more negative attributions about themselves (Brown, Heimberg, Frost, Makris, Juster & Leung, 1999) and those with socially prescribed perfectionism tend to associate both positive and negative outcomes with external attributes (Flett, Hewitt, Blankstein & Pickering, 1998). Also, those students with perfectionistic beliefs holding a high concern over mistakes react more negatively to their mistakes than students considered non-perfectionistic (Frost, Turcotte, Heimberg, Mattia, Holt & Hope, 1995). Academic performance has also been linked with maladaptive dimensions of perfectionism, finding socially prescribed perfectionism linked with lower grade point averages (Arthur & Hayward, 1997; Slaney et al., 2000), and poorer quality of performances in situations perceived to be threatening (Frost & Marten, 1990).

Students with perfectionistic standards also demonstrate under-achieving behaviour through rigidity and self-defeating behaviours. King (1986) and Barrow and Moore (1983) describe perfectionists as having rigid goals. Ferrari and Mautz (1997) demonstrate that students who are inflexible and unable to adjust to new surroundings have perfectionistic tendencies. Also, perfectionists are found to exhibit self-handicapping behaviours when in a condition of a fear of failure (Hobden & Pilner,

1995). Aspects of perfectionism seem to work as a detriment to performance for those with high perfectionistic standards, creating underachieving and avoidance behaviours.

Cognitive mediators. Perfectionism is defined as a set of cognitions characterized by specific types of thinking. Perfectionism involves internal self-talk typically of the type including 'all or nothing' thinking or schemas of 'shoulds' (Barrow & Moore, 1983; Burns, 1980; White, 1985), including schemas around social acceptability and social approval (Hewitt & Flett, 1991). Flett, Hewitt, Blankstein and Koledin (1991) found students with perfectionistic standards endorsed irrational beliefs involving the importance of being thoroughly competent and achieving in all aspects. Also, specific dimensions of perfectionism are associated with negative cognitions. For example, self-oriented perfectionism in students corresponds to less self-accepting thoughts, and socially-prescribed perfectionism in students is associated with categorical and the lack of constructive thinking (Flett et al., 1994). Perfectionists with high concern for mistakes express more negative affect and hold more 'should' statements than people with low concern for mistakes (Frost, Trepanier, Brown, Heimberg, Juster, Makus & Leung, 1997; Frost et al., 1995). Therefore, students with various types of perfectionism not only exhibit maladaptive behaviours, but also tend to hold irrational beliefs about themselves or their environment.

Psychological distress. Another area of research links perfectionism with various types of psychological distress. For example, individuals with perfectionistic standards, and who express the need to perform well in most activities, have been found to experience depression (Hewitt & Flett, 1993; Hewitt, et al., 1990; Hewitt et al., 1989). Different dimensions of perfectionism interact with life stress to predict depression in

students (Flett, Hewitt, Blankstein & Mosher, 1995). In studying the multidimensional aspect of perfectionism among undergraduate students, greater depression is found in those with higher levels of perfectionism for oneself and for socially prescribed perfectionism (Arthur & Hayward, 1997; Flett, Hewitt, Blankstein & O'Brien, 1991; Hayward & Arthur, 1998; Hewitt & Flett, 1990; Hill et al., 1997). A few studies find self-oriented perfectionism not associated with depression (Flett, Hewitt, Garshowitz & Martin, 1997; Saddler & Buckland, 1995). This finding suggests that certain maladaptive aspects of perfectionism to be associated with depression (Frost et al., 1993; Rice et al., 1998).

Research also links aspects of perfectionism to negative affect and suicidal ideation. Maladaptive aspects of perfectionism, including the socially-prescribed dimension, concern for mistakes, parental criticism and doubts of action are associated with increased negative affect (Frost et al., 1993). Also, students with strong perfectionistic tendencies experience more negative affect particularly under evaluative threat (Frost et al., 1995). Along with negative affect, perfectionistic students are more at risk for suicidal ideation (Adkins & Parker, 1996; Hewitt et al., 1994).

Beyond the debilitating impact of depression, undergraduate samples with perfectionism also have a high association with anxiety (Arthur & Hayward, 1997; Flett, Hewitt, Blankstein & Gray, 1998; Flett, Hewitt, & Dyck, 1989; Flett, Hewitt, Endler & Tassone, 1995; Hayward & Arthur, 1998; Hewitt & Flett, 1991; Johnson & Slaney, 1996; Rice et al., 1998). More specifically, Flett et al. (1989) found a significant correlation between self-oriented perfectionism and trait anxiety in undergraduate students, while Flett et al. (1995) found a significant association between perfectionism and state anxiety.

Overall, students' higher levels of maladaptive perfectionism is associated with higher levels of anxiety, more so than those with adaptive or no perfectionism.

Perfectionism is associated with other types of psychological distress in students. For example, higher levels of maladaptive and socially-prescribed perfectionism are associated with lower levels of self-esteem (Berlin, 1985; Flett, Hewitt, Blankstein & O'Brien, 1991; Preusser, Rice & Ashby, 1994) and lower life satisfaction (Mitchelson & Burns, 1998). Likewise, maladaptive perfectionism is associated with feelings of inferiority, emotional distress (Ashby & Kottman, 1996), Type-A maladjustment (Westra & Kuiper, 1996), and psychosocial adjustment for socially prescribed perfectionists (Flett, Hewitt & DeRosa, 1996). Consequently, those students with higher levels of maladaptive perfectionism are more prone to suffer with a variety of distresses.

As Adderholdt-Elliott (1989, 1991) suggests, types of perfectionism among students are also associated with a variety of fears. Hewitt and Flett (1991) found socially prescribed perfectionists to have a higher fear of negative evaluation. Likewise, perfectionists have higher fears of failure and fear of making mistakes (Dunkley et al., 2000; Flett et al., 1992; Blankstein, Flett, Hewitt, & Eng, 1993). Specifically, Blankstein et al. (1993) found self-oriented perfectionists to fear loss of control, feeling angry, failure, and making mistakes, while socially-prescribed perfectionists feared making mistakes, loss of control, criticism, looking foolish, and adapting to college. Dimensions of perfectionism indicate certain fears that can be debilitating to the performance of undergraduate students.

Positive adjustment. Recently, perfectionism has been associated with more positive aspects suggesting an adaptive component to perfectionism. Positive elements

often associated with perfectionism include achieving good grades and pursuing high ideals and goals (Halgin & Leahy, 1989; Hamachek, 1978; King, 1986; Slaney et al., 2000). Often people believe their perfectionistic tendencies are advantageous to pursuing and setting high goals (Johnson & Slaney, 1996; Mitchelson & Burns, 1998; Slaney & Ashby, 1996; Slaney et al., 1995).

Research links aspects of perfectionism with goal attainment and achievement striving. People with normal perfectionistic tendencies are considered those who set difficult but realistic goals for themselves (Hewitt et al., 1990). Different dimensions of perfectionism are associated with high achievement and goal attainment. For example, self and other-oriented perfectionism are associated with achievement striving (Flett, Sawatsky & Hewitt, 1995; Hewitt & Flett, 1991; Hill et al., 1997). As well, personal standards and organization are associated with setting higher standards for oneself and increased grade point average (Brown et al., 1999; Dunkley et al., 2000; Frost, Lahart & Rosenblate, 1991; Slaney et al., 2000). Specifically, Flett et al. (1995) found students with self-oriented perfectionism to have both organization and order goals, while students with socially-prescribed perfectionism had goals associated with relationships and self-grooming. Likewise these authors found students with high personal standards indicated higher performance and organizational goals. Therefore, perfectionism is considered more than a belief about the importance of being perfect but also it is an active striving and commitment toward the pursuit of high goals (Flett et al., 1995).

Students with perfectionism have also shown to be less indecisive and utilize an element of resourcefulness. While maladaptive dimensions of perfectionism are associated with indecisiveness, those students with high standards have less indecision

(Frost & Shows, 1993). Also, students with self-oriented perfectionism indicated more decisive behaviour (Leong & Chervinko, 1996). Flett, Hewitt, Blankstein and O'Brien (1991) found students with both self and other-oriented perfectionism reported higher levels of learned resourcefulness. Therefore, aspects of perfectionism seem to indicate positive behavioural outcomes.

Self-oriented perfectionists and the personal standards and organizational components of perfectionism are associated with more positive adjustments. Self-oriented perfectionists have a more positive appraisal of their social skills (Flett, Hewitt & DeRosa, 1996) and higher levels of positive affect (Frost et al., 1993). In reviewing the perfectionism literature, Blatt (1995) found self-oriented, personal standards and orderliness to be the positive dimensions of perfectionism. Similarly, Rice et al. (1998) define adaptive perfectionism including high standards, organization and order. Therefore, components of perfectionism may be adaptive for students, specifically in their setting of high standards and goals, and being decisive.

Perfectionism and Gender

A few studies indicate gender differences in relation to perfectionism. However, this difference appears to be equivocal. Parker and Mills (1996) found adaptive perfectionism to be more prevalent among female than male children, and male children more so than females to be nonperfectionists. In the post-secondary population, females evaluate their perfectionism to be more negative and distressing than males (Slaney & Ashby, 1996). However, a greater association of socially-prescribed perfectionism and procrastination has been found for males than their female counterparts (Flett et al., 1992).

Differences also exist between male and female perfectionists. Blankstein et al. (1993) found both male and females had high self-oriented perfectionism, however males with this type of perfectionism had fears associated with loss of control, while females with this type of perfectionism had fears of anger, making mistakes and loss of control. Likewise, Flett, Hewitt, Blankstein and Gray (1998) found gender differences in attributions in relation to perfectionism. Male students with self-oriented perfectionism attributed both positive and negative achievement to luck and negative achievement to effort. Female students with self-oriented perfectionism attributed negative achievement to luck. However, both males and females with socially-prescribed perfectionism associated positive achievement with luck and external attributes. Hobden and Pilner (1995) found females more so than males to attribute positive performance to luck. Flett, Hewitt, Blankstein and Koledin (1991), in studying beliefs among perfectionists, found female perfectionists to be characterized by a greater level of irrational thinking. Although both males and females may be perfectionistic, their experience of their perfectionism may be different through levels of perceived distress, through attributions about their performance and through their way of thinking.

Perfectionism and Self-Efficacy

Various authors considering the effects of perfectionism have implied a relationship between perfectionism and self-efficacy. Slaney et al. (1995) considered perfectionists to have extremely high personal standards for their performance, and questioned whether the high standards were related to self-efficacy. Frost and Marten (1990) also alluded to self-efficacy expectations and the sense of doubt perfectionists have in their own performance. Likewise, Arthur and Hayward (1997) suggested that,

among college students, high achievers with perfectionist standards may lose confidence in their abilities and the fear of not attaining academic standards may become such a barrier that students stop trying. The aspects of self-doubt and losing confidence may be related to a person's self-efficacy expectations. The underachieving behaviour of perfectionists may be related to their sense of self-efficacy. Since mastery experiences are the most effective way of building self-efficacy, theoretically it makes sense that self-efficacy expectations would be affected by perfectionistic standards.

One study examined the relationship between perfectionism and self-efficacy among undergraduates (Hart, Gilner, Handal & Gfeller, 1998). The results were equivocal, finding no significance between overall perfectionism and self-efficacy. One reason for this could be the use of a generalized self-efficacy scale. Self-efficacy needs to be assessed with reference to a specific set of behaviours or tasks (Hackett & Watkins, 1995). Therefore, the use of a general measure of self-efficacy may not have fully captured a link between the constructs. Small, yet significant, relationships were found between socially-prescribed perfectionism and self-efficacy. Also, a small, negative, association was found between self and other-oriented perfectionism and self-efficacy. The results of this study are suggestive that certain types of perfectionism relate differently to self-efficacy.

Other authors have found stronger relationships between perfectionism and self-efficacy. For example, aspects of perfectionism are related to efficacy scores from the Depressive Experiences Questionnaire, including self-oriented perfectionism (Hewitt & Flett, 1990) and the Personal Standards dimension from Frost's multidimensional scale of perfectionism (Frost et al., 1990). Self-oriented and other-oriented perfectionism are

associated with increased personal control, conceptualized as perceived self-efficacy, while socially-prescribed is not (Flett, Hewitt, Blankstein & Mosher, 1995).

Adaptive perfectionists have higher self-efficacy in relation to both non-perfectionists and those identified as maladaptive perfectionists (LoCicero & Ashby, 2000). In this study no differences in self-efficacy were found between those students with maladaptive perfectionism and those identified as non-perfectionists. Therefore, the relationship between perfectionism and self-efficacy is not clear. There may be adaptive aspects of perfectionism such as personal standards, and self-oriented perfectionism, being positively linked with self-efficacy, however further investigation is needed to advance the understanding of the two constructs. Consequently one of the goals of this study is to explore the relationship between a specific type of self-efficacy, career decision self-efficacy, and adaptive and maladaptive perfectionism.

Perfectionism and Career Development

Career beliefs include perfectionistic thoughts, such as misconceptions of exactitude, meaning career planning and decision-making need to be precise and follow an exact plan (Stead & Watson, 1993; Thompson, 1976). Only a few studies have examined perfectionism in relation to career development directly. According to Slaney et al. (1995), students' perfectionism can affect career choice, performance, productivity, satisfaction, and adjustment. Specifically, the literature identifies negative aspects of perfectionism that can interfere with the career development process: striving to reach unattainable goals (Halgin & Leahy, 1989), lack of taking action to reach goals (Adderholdt-Elliott, 1990; Flett, Sawatsky & Hewitt., 1995), not being able to make a career decision (Leong & Chervinko, 1996), and being more indecisive (Frost & Shows,

1993). Only Leong and Chervinko (1996) have empirically validated the relationship between socially prescribed perfectionism and career indecision. Self-oriented perfectionism was not associated with career indecision. This study appears to confirm both adaptive and maladaptive components of perfectionism.

Only one study to date examines the relationship between negative career thinking and dimensions of perfectionism. Osborn (1998) found a correlation between overall perfectionism and negative career thoughts, and an association between the components of doubts of action, parental criticism to commitment anxiety and external conflict. The other components of perfectionism were not associated with negative career thinking. Again, the results of this study suggest that certain types of perfectionism may be maladaptive for career development while others may not. Consequently, another goal of this study is to explore the relationship between adaptive and maladaptive dimensions of perfectionism and negative career thoughts.

Summary

Beliefs are identified in the theoretical and empirical literature as having a substantial impact on the career decision-making process. Post-secondary students seeking career counselling are a population of particular concern regarding their beliefs about themselves, the world of work, and the career decision-making process. Of specific importance are the negative consequences related to students' negative career thoughts, their level of self-efficacy regarding making a career decision and how perfectionistic beliefs may have an impact upon their decision-making abilities.

Negative career beliefs hinder the career decision-making process. Therefore, it is important to develop an understanding of the types of negative beliefs impairing post-

secondary students career decision-making. Negative career thoughts are associated with career indecision, confusion and anxiety around the career problem-solving process.

Career decision self-efficacy is another specific belief often researched in post-secondary students. Post-secondary students are in the midst of making career decisions, therefore, it is also important to have an understanding of the level of their beliefs in their ability to make a career decision and how this relates to other career beliefs.

Similarly, perfectionistic beliefs are identified as influencing many aspects of post-secondary students' affect, behaviour, and thoughts. To date very little empirical research has considered perfectionism's role in post-secondary students' career development. Therefore, an important consideration, to increase the understanding of post-secondary career development, is to examine the relationship between perfectionism, career self-efficacy and negative career beliefs. Consequently, this study intends to examine the career beliefs of students, and the relationship with career decision self-efficacy and adaptive or maladaptive components of perfectionism in hopes to develop a better understanding of students' ability, or inability, to make a career decision.

Research Questions

Based on the need for research to address the impact of negative career beliefs, career decision self-efficacy, and dimensions of perfectionism, the following research questions form the basis of this study:

1. What are the beliefs of post-secondary students seeking career counselling?
2. To what extent are the differences in students' experiences of negative career thinking, career decision self-efficacy and dimensions of perfectionism associated with age and gender?

3. What is the relationship between negative career thinking and career decision self-efficacy?
4. What are the relationships among negative career thinking, career decision self-efficacy and the dimensions of perfectionism?

CHAPTER 3

Method

Chapter 2 outlined research questions concerning the relationship between post-secondary students' career beliefs, self-efficacy and perfectionism. In chapter 3, an explanation of the research method used to explore these questions is presented. First the research design is presented, followed by descriptions of the research participants, specific research procedures, instrumentation, and data analyses.

Research Design

This correlational study examined the relationships between career beliefs, career self-efficacy, and perfectionism using standardized self-report measures of negative career thinking, career decision self-efficacy and perfectionism. Univariate parametric and nonparametric analyses were used to compare perfectionists' experience of negative career thinking and career decision self-efficacy. In addition, gender and age influences were investigated through one-way analysis of variance (ANOVA), independent t-tests, and chi-square analyses.

Research Participants

The sample included students seeking individual and group career counselling in a post-secondary school setting. A total of 76 people volunteered to participate, out of 182 invitations made to undergraduate students seeking career counselling. Demographic information was obtained through the administration of the Participant Information Form (Appendix A). Of these 76 participants, 20 (26.3%) were male and 56 (73.7%) were female. The age range of the sample was 18 to 40, mean age of the sample was 23 ($SD=6.27$), see Table 1 for frequencies. Other demographic information collected

included ethnicity, with the majority (67.1%) of participants considering themselves Western-European Canadian, 11.8% indicating Other ethnicity, 7.9% Asian-Canadian, 2.6% East Indian Canadian, 2.6% Latin Canadian, 1.3% Russian Canadian, 1.3% Ukrainian Canadian and 1.3% First Nation. The participants' number of years in school ranged from 1 to 5, with a mean of 2.09 ($SD=1.27$). The majority of students were in an undergraduate program (59.2%); the remainder indicated a diploma (37.8%) or graduate (1.3%) program. Finally, a small portion of this sample indicated having a learning or physical disability (9.2%), while 89.5% indicated no disability.

Table 1.

Description of Student Sample

	<u>Age Groups</u>			<u>Total</u>
Gender	18 - 19	20 – 22	23 - 40	N=76
Male	6	9	5	20
Female	23	16	17	56

Three post-secondary institutions in Alberta were selected for inclusion in this study. Student volunteers were invited through an information sheet describing the project (Appendix B), provided by a counsellor, career resource administrator or counselling office receptionist. Students were asked to complete the questionnaires in conjunction with other career assessment tools used in the career counselling process. During data collection, information regarding the nature of the study, time requirements, and research activities were explained on the information sheet and within the consent form (Appendix C).

Signed consent forms were obtained at the beginning of the presentation of the questionnaires and were returned with the completed research packages from those wishing to volunteer for the study. Students were required to be 18 years of age or older in order to participate. In return for their participation, students were offered written individual feedback of their results and to attend a group information session about the project. Attendance at the information session was considered optional and not a condition of the participation in the research.

Procedure

Questionnaires were handed out to post-secondary students seeking career counselling while completing other career assessment tools. Students were invited based solely on being in the career decision-making process; students in both group and individual counselling were invited to participate. Students were asked to complete the questionnaires while at the counselling centre or to return the package to the career resource administrator, or receptionist, at their post-secondary institution.

Anonymity of the volunteer sample of students was maintained by using identifying subject numbers on the survey packages, only seen by the researcher. Unmarked envelopes containing the surveys were provided to each participant, and the students were asked that once they completed the surveys to insert all their information back into the envelope provided and to return the sealed envelope to the resource person. No student names were required on the questionnaires. However, students were invited to receive a written feedback summary of their individual results by filling in their name and address on the consent form and indicating their request for feedback. The summaries were sent to only those students wanting individual interpretation to discuss

further in the group feedback session. The counselling staff at one of the research sites provided individual interpretation to participants. The researcher provided training to the staff about the research instruments and their interpretation. Student participants at this research site, who wanted individual interpretation, were invited to contact their counsellor to discuss details of their scores.

Instrumentation

Students were asked to complete three questionnaires: the Career Decision Self-efficacy Scale (Appendix D), the Almost Perfect Scale – Revised (Appendix E), and the Career Thoughts Inventory (Appendix F). In addition, the Participant Information Form (Appendix A) was used to obtain demographic information from each of the participants. Instructions for completion were included at the top of each questionnaire (see Appendices).

Career Decision Self-Efficacy Scale – Short Form

The Career Decision Self-Efficacy Scale – Short Form (CDMSE-SF; Betz, Klein & Taylor, 1996) is a theoretically based instrument measuring an individual's degree of belief that he/she can successfully complete tasks necessary to making career decisions. The CDMSE-SF consists of 5 subscales measuring behaviours pertinent to: accurate self-appraisal, gathering occupational information, goal selection, making plans for the future, and problem solving. In developing the original scale, Taylor and Betz (1983) selected these behaviours based on five career choice competencies, postulated by Crites' (1978) and his model of career maturity. The 25-item short form was developed by eliminating five of the ten items from each of the five CDMSE scales. According to Betz and Taylor (2000), items retained on the short form were: "those satisfying criteria of: (1) substantive

generality (versus content specificity or narrowness); (2) item-own scale correlation equal to or above .50; (3) loading on appropriate factor (only) in Taylor and Popma (1990) factor analysis; and recommendation of retention of the basis of Gati, Osipow and Fassa's (1994) split-scale analysis of the subscale structure" (p. 8).

Respondents are asked to rate their agreement with each item on a 5-point Likert scale. All items are scored in the same direction. Total CDMSE-SF scores were obtained by summing the 25 items, higher scores reflecting higher career decision self-efficacy. Each of the subscale totals were the summation of five different questions intermixed in the questionnaire. Higher scores on each of the subscales reflect higher career decision self-efficacy in relation to the particular five career tasks.

Reliability of the CDMSE-SF. Scale construction and psychometrics of the CDMSE-SF are based on a number of studies with undergraduate students. The original scale was developed using a normative sample of 346 undergraduate students from a large state university and a liberal arts college. In the original sample, internal consistence reliability coefficients ranged from .86 to .89 for the subscales and .97 for the total score (Taylor & Betz, 1983). The internal consistency reliability of the short form ranged from .73 (Self-Appraisal) to .83 (Goal Selection) for the 5-item subscales and yielded an alpha of .94 for the 25-item total score (Betz et al., 1996). In a subsequent study, short form reliabilities ranged from .69 (Problem-Solving) to .83 (Goal Selection) for the subscales and .93 for the total score (Betz & Klein Voyten, 1997). Stability of CDMSE scores were demonstrated by Luzzo (1993), reporting a 6-week test-retest coefficient of .83 for the CDMSE total score. Luzzo's (1996) psychometric evaluation of

the CDMSE concluded that adequate reliability of the scale has been repeatedly demonstrated, supporting the use of the CDMSE in research settings.

Validity of the CDMSE-SF. Taylor and Betz (1983) developed the CDMSE with a sound conceptual basis, using Crites (1978) model of career maturity based on the necessity of developing five career choice competencies. Although constructed with a sound conceptual basis, evidence from factor analysis only marginally supports the existence of five subscales. Taylor and Betz's (1983) original study determined five separate factors, however Betz et al. (1996) found evidence for the existence of only Occupational Information and Goal Selection factors and one separate item for Self-Appraisal. Therefore, based on these findings and those of other researchers, the CDMSE measures self-efficacy in career decision making across a broad range of decision-making behaviours, and that it may be "best characterized as a generalized career self-efficacy measure covering a multifaceted domain of career decision-making behaviours" (Taylor & Popma, 1990, p. 28). Betz and Taylor (2000) suggest retaining the five-subscale structure because of its roots in Crites' Career Maturity Theory.

The convergent validity of the CDMSE-SF has been measured in comparison to other instruments of similar constructs. In particular, career decision self-efficacy has been compared to career indecision and related attitudes, career exploratory behaviours, and degree of progress toward educational and career goals. Research consistently demonstrates that stronger perceptions of career decision self-efficacy are related to lower levels of career indecision (Betz et al., 1996; Betz & Klein Voyten, 1997; Niles & Sowa, 1992; Taylor & Betz, 1983). Luzzo and Day (1999) also found CDMSE-SF

correlates to the Control, Responsibility and Working Hard Subscales of Krumboltz' (1991) Career Beliefs Inventory.

Betz et al. (1996) measured CDMSE-SF concurrent validity in relation to My Vocational Situation-Identity subscale (MVS; Holland, Daiger, Power, 1980) and the Career Decision Scale (CDS; Osipow, 1987). Most correlations were statistically significant and of moderate size, ranging from .40 to .66 for females and .28 to .55 for males on the Identity subscale. CDMSE-SF scores correlated inversely with Certainty and Indecision subscales of the CDS, ranging from -.46 to -.76 for females and -.03 to -.55 for males (Certainty) and -.47 to -.66 for females and -.19 to -.60 for males (Indecision). The correlations of the CDMSE-SF scales with the MVS Identity and CDS Indecision and Certainty subscales were somewhat higher for females than for males. The highest validity correlation is between Goal Selection and the other criterion scales (Indecision, Certainty and Identity). Betz et al.'s (1996) findings suggest that the short form of the CDMSE contains psychometric characteristics comparable to, or better than, the original version with only half of the length.

Almost Perfect Scale – Revised

The Almost Perfect Scale – Revised (APS-R; Slaney, Mobley, Trippi, Ashby, & Johnson, 1998) is a theoretically based instrument consisting of 3 subscales measuring High Standards, Order, and Discrepancy. Permission was granted by Dr. Robert Slaney to make copies of the APS-R for purposes of this study. The APS-R consists of 23 items embedded in the original Almost Perfect Scale (APS; Slaney & Johnson, 1992). Respondents are asked to rate their agreement with each item on a 7-point Likert scale. All items are scored in the same direction. Discrepancy scores are obtained by summing

twelve separate items, High Standard scores are determined by summing seven items, and Order scores are calculated with four items. High Standards and Order subscales measure adaptive components of perfectionism, while Discrepancy measures maladaptive components of perfectionism. Previous research with the APS-R identify perfectionists as participants whose scores on the High Standards subscale fall above the 67th percentile, and nonperfectionists as persons with High Standards scores on the APS-R below the 67th percentile (Kottman & Ashby, 1999; LoCircero & Ashby, 2000). Perfectionists identified by this method are then divided into maladaptive or adaptive perfectionists using a median split on the Discrepancy subscale of the APS-R. Maladaptive perfectionists are those perceiving a high level of distress resulting from the discrepancy between their personal standards and their performance, and adaptive perfectionists those perceiving a low level of distress resulting from the discrepancy between their personal standards and their performance.

Reliability of the APS-R. Scale construction and psychometrics of the APS-R are based on a study involving undergraduate students (Slaney et al., 2000). The results of the factor analytic study suggest the existence of a three-factor model of perfectionism consisting of High Standards, Order and Discrepancy. Tests of reliability of the factor structure revealed Cronbach's coefficient alphas from .83 for High Standards, .84 for Order, and .92 for Discrepancy.

Validity of the APS-R. Slaney et al. (2000) measured convergent validity by comparing the APS-R to measures of self-esteem (Rosenberg Self-Esteem Scale), depression (Beck Depression Inventory), worry (Penn State Worry Scale), social desirability (Marlowe-Crowne Social Desirability Scale) and achievement, measured by

the undergraduates' grade point average. The APS-R High Standards subscale was more strongly associated with self-esteem and grade point average than the other measures, indicating High Standards may indicate a positive dimension to perfectionism.

Alternatively, the negative relationships found between Discrepancy and both GPA and Self-Esteem suggest this scale may be more strongly related to negative personality and achievement dimensions.

To assess concurrent validity, Slaney et al. (2000) examined correlations between selected perfectionism subscales within the APS-R and other measures of perfectionism, including Hewitt and Flett's (1991) Multidimensional Perfectionism Scale (HFMPS) and Frost, Marten, Lahart and Rosenblate's (1990) Multidimensional Measure of Perfectionism (FMPS). The High Standards subscale from the APS-R was significantly correlated with the Self-Oriented Perfectionism subscale from the HFMPS, and the Discrepancy subscale was significantly correlated with Self-Oriented and Socially-Prescribed Perfectionism. The High Standards subscale was also significantly correlated with the Personal Standards subscale of the FMPS, while the APS-R Order subscale was correlated with Organization from the FMPS and the APS-R Discrepancy subscale was significantly correlated with Concern Over Mistakes and Doubts of Action from the FMPS.

Career Thoughts Inventory

The Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon & Saunders, 1996) is a theory-based assessment inventory, consisting of 48 items yielding a global indicator of dysfunctional thinking in career problem solving. Peterson et al. (1996) define career problem-solving as a complex set of thought processes involved in

career decision-making, consisting of analyzing one's existing state of career indecision, formulation of alternatives, and ultimate commitment to and carrying out action toward a specific goal. Thought processes can have an impact at any point in the decision-making process and if negative can limit a person's capacity to make a career decision. Sampson et al. (1996) created the CTI to assess an overall level of negative career thinking, as well as scores on three subscales measuring Decision-Making Confusion, Commitment Anxiety, and External Conflict. Respondents are asked to rate their agreement with each item on a 4-point Likert scale. All items of the CTI are scored in the same, negative, direction. Total CTI scores are obtained by summing all 48 items, while certain individual items are scored separately for each individual subscale. Higher scores on each of the subscales, and the total score, reflect higher negative career thinking.

Reliability of the CTI. Scale construction and psychometrics of the CTI are based on a number of studies involving high school students, undergraduate students, and adults. Sampson et al. (1996) examined the internal consistency of the CTI total score and construct scales by calculating coefficient alphas for each of the respective normative groups. The CTI has a high internal consistency for total scores as well as within each of the construct scales. The alpha coefficients for total scores ranged from .93-.97. Alpha coefficients for the construct scales ranged from .92 to .94 for Decision-Making Confusion (DMC), .74 to .81 for External Conflict (EC), and .79-.91 for Commitment Anxiety (CA). The authors also found adequate to high stability in the CTI total and construct scores among undergraduate students. Correlations for the undergraduate sample indicated little change in response over a four-week period, with coefficients ranging from .86 for total CTI, .82, .79, and .74 for DMC, CA and EC, respectively.

Response set bias in the CTI. All of the CTI items are written in the same 'negative' direction. Sampson et al. (1996) indicate the need for one direction among items in order to facilitate the use of the CTI workbook. The authors examined the concern of response bias and found no significant differences in responses from the first half to the second half of the inventory. A slightly higher mean was found in the second half ($M=22.41$, $SD=11.87$) compared to the first half ($M=20.16$, $SD=10.27$), indicating responses became more liberal and suggesting people felt slightly more comfortable regarding their admission of troubling thoughts towards the second half of the inventory.

Validity of the CTI. A variety of studies have assessed the validity of the CTI. Specifically, content validity concerns the congruence of CTI items with Cognitive Information Processing Career Theory (CIP) content dimensions and construct scales with the theoretical basis of the measure (Sampson et al., 1996, Sampson et al., 1998). Individual items and construct scales are directly linked to the CIP theory and the CTI Professional Manual (Sampson et al., 1996) groups all 48 items by content dimension.

Convergent validity is concerned with the extent to which the CTI total score and construct scale scores correlate with other measures of similar constructs. Information about convergent validity was obtained by administering a range of measures to 509 adults, 152 undergraduate students, and 151 11th and 12th grade high school students. A wide range of measures was used to measure convergent validity according to Sampson et al. (1998):

The convergent measures included My Vocational Situation Identity scale and Occupational Information and Barriers categories (MVS; Holland, Daiger, & Power, 1980a); the Career Decision Scale Certainty and Indecision scales (CDS; Osipow,

Carney, Winer, Yanico, & Koschier, 1987); the Decidedness, Comfort, Self-Clarity, Knowledge about Occupations & Training, Decisiveness, and Career Choice Importance scales of the Career Decision Profile (CDP; Jones, 1989); and the Neuroticism domain, including the facets of: Anxiety, Angry Hostility, Depression, Self-Consciousness, Impulsiveness, and Vulnerability (NEO PI-R, Costa & McCrae, 1992a) (p. 124).

Sampson et al. (1996) found CTI scales were consistently inversely correlated with positive constructs such as vocational identity, certainty, and knowledge about occupations, and directly correlated with constructs with negative connotation such as indecision, neuroticism, anxiety, angry hostility, depression, and impulsiveness.

Sampson et al. (1996) examined criterion validity to assess the extent to which the CTI accurately discriminates between clients seeking career services and non-clients. Analyses comparing a group of clients to non-clients at two different universities found significant differences in CTI total scores and construct scales. However, at this time no normative data are available for client populations.

Summary

This chapter detailed the methodology of assessing the relationship between negative career thinking, career decision self-efficacy and perfectionism. This exploratory study involved participation from 76 post-secondary students who were seeking career counselling. Specific procedures were implemented at counselling centres of three post-secondary institutions in Alberta, to recruit participation in this study. Recruitment efforts included inviting participation from students currently involved in the career decision-making process.

Quantitative methods were employed using the Career Thoughts Inventory, Career Decision Self-Efficacy Scale-Short Form, and the Almost Perfect Scale-Revised. These instruments were chosen as reliable and valid instruments to measure negative career thinking, career decision self-efficacy and perfectionism. The APS-R is a relatively new instrument measuring adaptive and maladaptive dimensions of perfectionism. The CTI and CDMSE-SF are instruments that measure two types of career beliefs, negative career thinking and career decision self-efficacy, respectively. The next chapter provides specific descriptive and inferential results of analyses performed in this study.

Research Questions with Associated Data Analyses

The data analyses are outlined below. For the purpose of clarity, the various analyses are organized by the research question they address. Details of these analyses are presented in the next chapter.

1. What are the beliefs of post-secondary students seeking career counselling?

One of the main purposes of this study was to describe the types of beliefs held by post-secondary students' seeking career counselling. The first research question addresses this issue. Descriptive statistics in the form of frequencies, means, and standard deviations were performed on the CTI, CDMSE-SF, and APS-R and their subscales.

2.To what extent are the differences in students' experiences of negative career thinking, career decision self-efficacy and dimensions of perfectionism associated with age and gender?

Another important dimension of this study was to examine if students' age and gender were associated with their types of career beliefs. Multiple independent t-tests and one-way analysis of variance (ANOVA) were calculated to assess the differences of means on the CTI and CDMSE-SF for males and females, and different age groups. Chi-square analysis was performed using the different types of perfectionists to determine differences associated with gender and age. Age and gender of the participants were gathered from the Participant Information Form (Appendix A).

3.What is the relationship between negative career thinking and career decision self-efficacy?

Pearson product moment correlations were calculated to assess the degree of relationship between the total level of negative career thinking, the total level of career decision self-efficacy, and their corresponding subscales.

4.What are the relationships among negative career thinking, career decision self-efficacy and the dimensions of perfectionism?

Pearson product moment correlations were calculated to assess the degree of relationship between the total level of negative career thinking, career decision self-efficacy, their subscales and the High Standards and Discrepancy subscales of the APS-R. Parametric and nonparametric tests were used to assess the differences between types of perfectionists and negative career thinking and career decision self-efficacy.

The Kruskal-Wallis test, a nonparametric counterpart of the one-way ANOVA, was used to compare rankings of the CTI scores between types of perfectionism. The Mann-Whitney U-test, the nonparametric analog of the independent groups t-test, was performed on the ranked CTI scores to determine specific differences between types of perfectionism.

The ANOVA was used to compare the career decision self-efficacy means between the three types of perfectionists. Post hoc Tukey analysis was used to determine between which groups of perfectionists differences occurred.

CHAPTER 4

Results

This chapter provides the analyses of the study's research questions. Descriptive and inferential statistics were used and results of the investigations are provided. Each research question is presented with the analyses performed for that particular question. An alpha level of .05 was employed for all statistical analyses.

Prior to analysis, all variables were examined through various SPSS programs for accuracy of data entry, missing values, fit between their distribution and the assumptions of parametric and nonparametric data analysis. Two participants had missing values for the entire CTI; these cases were not included in the analyses. Outliers were identified before analyses and removed in order to meet fit between distributions. Based on the inspection of the data, univariate conditions of joint normal distribution and homogeneity of variance were considered to be satisfactorily met; where distributions were varied, nonparametric equivalent tests were performed.

Research Question 1

What are the beliefs of post-secondary students seeking career counselling?

Descriptive statistics in the form of means, standard deviations, and frequencies were derived for students' types of career thinking, measured by the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon & Saunders, 1996); career decision self-efficacy, measured by the Career Decision Self-efficacy Scale – Short Form (CDMSE-SF; Betz, Klein & Taylor, 1996); and perfectionism, measured by the Almost Perfect Scale – Revised (APS-R; Slaney, Mobley, Trippi, Ashby, & Johnson, 1998).

Negative Career Thinking of Post-Secondary Clients

Table 2 presents the results of the descriptive statistical analyses for the CTI, including means and standard deviations for the total score and subscale scores, for both men and women in the sample. An inspection of the means indicate this sample of students seeking career counselling had, on average, elevated levels of negative career thinking ($M=65.00$), in the 82nd percentile in comparison to college students. This is higher than the normative sample of clients' total negative thinking ($M=58.91$, 73rd percentile) reported by Sampson et al. (1996). Likewise, this sample had higher subscale scores in comparison to the normative client sample (15.11 on the DMC, 16.20 on the CA, 4.69 on the EC). Males of this sample had slightly higher means than women. Sampson et al. do not report male and female differences on the CTI due to no significant gender differences found within the normative sample.

Table 2.

Means and Standard Deviations of Career Thoughts Inventory

Scale	<u>Males</u>		<u>Females</u>		<u>Totals</u>		
	n=20		n=54		N=74		
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	%ile
Total Negative Thinking	67.55	15.56	64.06	20.35	65.00	19.13	82
Decision Making Confusion (DMC)	17.35	6.02	16.59	8.81	16.80	8.12	79
Commitment Anxiety (CA)	17.70	4.33	17.63	4.61	17.65	4.51	79
External Conflict (EC)	7.15	2.76	5.67	2.91	6.07	2.93	96

Note. Percentile scores are in comparison to college students, no client percentile comparisons are available in Sampson et al. (1996).

Career Decision Self-Efficacy of Post-Secondary Clients

Overall, this sample of students seeking career counselling indicated moderate confidence in their ability to undertake tasks necessary to make a career decision. Table 3 presents the results of descriptive analyses for the CDMSE-SF, including means and standard deviations for the total score and subscale scores, for both men and women in the sample. This student sample indicated elevated total career decision self-efficacy scores ($M=84.09$), in comparison to Betz and Taylor's (2000) reported mean of their normative sample ($M=67.54$). While the total sample means differ, both sample groups indicated moderate or considerable confidence in their ability to perform tasks necessary to effective career decision-making.

Students' confidence in each five decision-making tasks ranged from moderate to much confidence as indicated by the subscale scores. Likewise, as indicated by the subscale scores, this sample of students involved in the career decision-making process had higher confidence in all of the decision-making tasks than their normative counterpart. The highest mean score was obtained on the Occupational Information subscale ($M=18.17$), while the lowest mean was on the Goal Selection subscale ($M=15.50$). Betz and Taylor (2000) reported the normative sample to have the highest mean on the Self Appraisal subscale ($M=13.92$), and the lowest mean on the Problem-Solving subscale ($M=12.92$).

Males, in this sample, have slightly higher means on all career decision self-efficacy scores than their female counterparts. The slight gender difference in career decision self-efficacy also differs from Betz and Taylor's (2000) report of the normative sample, in which the females had slightly higher means than the males.

Table 3.

Means and Standard Deviations of Career Decision Self-Efficacy

	<u>Males</u>	<u>Females</u>	<u>Total</u>
	n=20	n=56	N=76
	<u>M</u>	<u>M</u>	<u>M</u>
Total Career Self-Efficacy	88.23 (11.84)	83.71 (13.80)	84.90 (13.38)
Self-Appraisal	18.90 (3.29)	17.35 (3.24)	17.76 (3.30)
Occupational Information	19.00 (2.92)	17.87 (3.54)	18.17 (3.40)
Goal Selection	15.90 (2.81)	15.35 (3.27)	15.50 (3.15)
Planning	17.35 (2.50)	16.59 (3.11)	16.79 (2.96)
Problem-Solving	17.07 (3.13)	16.77 (3.32)	16.84 (3.26)

Note. Values enclosed in parentheses represent standard deviations.

Perfectionism in Post-Secondary Clients

Table 4 indicates the frequency of perfectionism in this sample of undergraduates seeking career counselling. As in previous studies (e.g., Ashby & Kottman, 1999; LoCicero & Ashby, 2000), participants whose scores on the High Standards subscale of the APS-R fell above the 67th percentile were identified as perfectionists. A median split on the Discrepancy subscale of the APS-R was used to distinguish between maladaptive and adaptive perfectionists. In this study, the majority of post-secondary students seeking career counselling were identified as non-perfectionists (64.47%). Of those participants

considered perfectionists, more experienced maladaptive perfectionism (22.37%) than adaptive (13.16%).

Table 4.

Types of Perfectionism Experienced by Post-Secondary Students Seeking Career Counselling

	<u>Ages</u>						Totals
	18 – 19		20 – 22		23+		
	M	F	M	F	M	F	
Perfectionists							
Adaptive	0 (0.00%)	1 (1.32%)	2 (2.63%)	2 (2.63%)	3 (3.95%)	2 (2.63%)	10 (13.16%)
Maladaptive	1 (1.32%)	3 (3.95%)	3 (3.95%)	4 (5.26%)	0 (0.00%)	6 (7.89%)	17 (22.37%)
Non-perfectionists	5 (6.58%)	19 (25.00%)	4 (5.26%)	10 (13.12%)	2 (2.63%)	9 (11.84%)	49 (64.47%)
Totals	6 (7.89%)	23 (30.26%)	9 (11.84%)	16 (21.05%)	5 (6.58%)	17 (22.37%)	76 (100%)

Research Question 2

To what extent are the differences in students' experiences of negative career thinking, career decision self-efficacy and dimensions of perfectionism associated with age and gender?

Influence of Gender and Age on Career Thinking and Self-Efficacy

Independent group t-tests and ANOVA's were used to investigate gender and age differences in negative career thinking and career decision self-efficacy scores as

dependent variables. The number of subjects varied across analyses due to two missing values on the CTI. Results of the t-test analyses for gender differences in the experience of negative career thinking, $t(72)=.70$, $p=.49$, and career decision self-efficacy, $t(74)=1.30$, $p=.20$, did not meet significant results. Therefore, the experience of negative career thoughts and career decision self-efficacy were not associated with gender.

ANOVA's were performed to determine differences associated with age on the CTI and CDMSE-SF (see Table 5). Means of the sample age groups indicated the middle age group (20-22) had the highest career decision self-efficacy mean, while the younger (18-19) and older (23+) age groups were approximately equivalent. ANOVA results indicated no significant age differences, $F(2,73)=.771$, $p=.47$ $MSe=180.36$, between age subgroups and their mean experience of career decision self-efficacy. There was a significant difference among age groups, $F(2,71)=3.65$, $p=.03$ $MSe=341.27$, for total negative career thinking. Post hoc, Tukey HSD, analysis determined students age 18 – 19 had significantly higher scores than those students age 23+ on the Career Thoughts Inventory (see Table 6). The means scores on the CTI decreased with the age of the sample. There were no other significant differences for age and gender with negative career thinking or career decision self-efficacy.

Table 5.

Age Groups, Negative Career Thinking, Career Decision Self-Efficacy

Age Group	<u>Negative Thinking</u>				<u>Career Self-Efficacy</u>		
	N	<u>M</u>	<u>SD</u>	<u>%ile</u>	N	<u>M</u>	<u>SD</u>
18 – 19	28	71.42	15.47	86	29	83.26	11.78
20 – 22	24	64.63	23.96	79	25	87.60	13.94
23 +	22	57.23	14.73	69	22	84.00	14.83

Table 6.

Post-Hoc Tukey Analysis of Age and Negative Career Thinking

	<u>Ages</u>		
	18 – 19	20-21	23+
Mean	71.43	64.63	57.23
20 – 21	-6.80	-	
23+	-14.20*	-7.40	-

*p.<.05

Influence of Gender and Age on Perfectionism

Exploratory analyses were performed in order to examine possible differences in types of perfectionism reported by different subsets of students, see Table 3 for frequencies. Chi-square tests of independence were used to compare types of perfectionism by age and gender subgroups. Due to inadequate cell sizes, the adaptive and maladaptive samples were combined into perfectionists and compared to non-perfectionists to assess influence of gender and age. As Table 7 illustrates, Chi-square analysis determined only age was significant, $\chi^2(2,76)=7.03$, $p=.03$, indicating that age

and two types of perfectionism, perfectionist and nonperfectionist, were not independent. As Figure 1 depicts, the younger age group (18-19) had large variation in comparison to both the middle (20-22) and older (23+) age groups in their experience of perfectionism versus nonperfectionism.

Table 7.

Chi-Square Values for Types of Perfectionists

Variables	χ	<u>df</u>	<u>p</u>
2 Groups of Perfectionism & Age	7.03	2	.03*
2 Groups of Perfectionism & Gender	1.06	1	.30

* $p < .05$

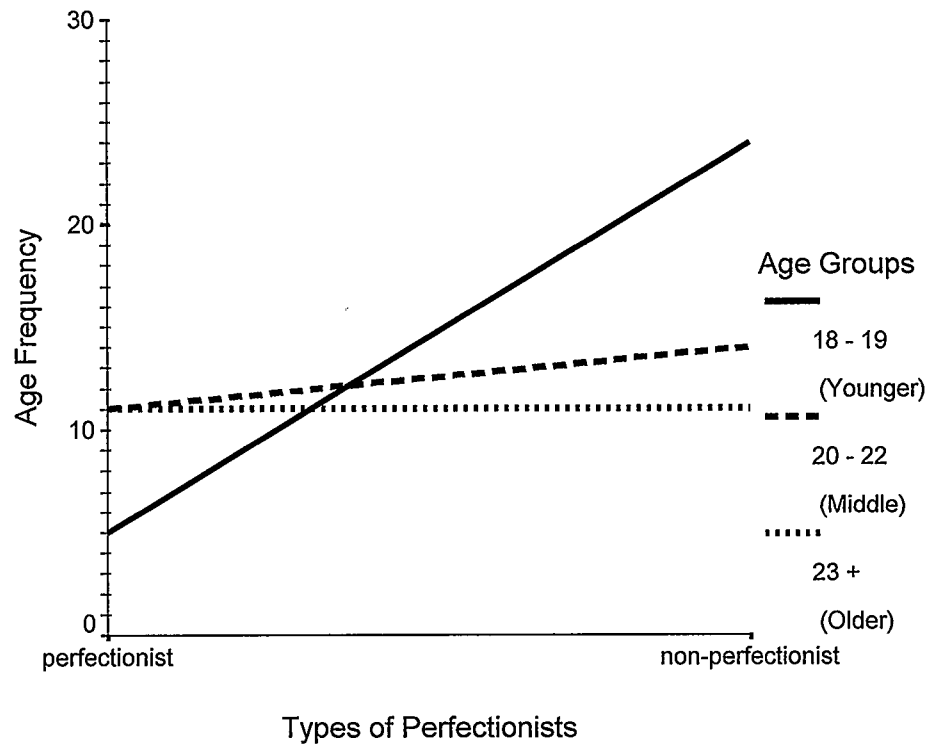


Figure 1. Interaction between frequency of age groups and two types of perfectionism, perfectionist and nonperfectionist.

Research Question 3

What is the relationship between negative career thinking and career decision self-efficacy?

Pearson product moment correlations were computed to explore the relationship between total negative career thinking and total career decision self-efficacy. These results are shown in Table 8. Negative career thinking was significantly inversely correlated with career decision self-efficacy ($r = -.52$). The moderate negative relationship between negative career thinking and career decision self-efficacy indicated that as students' belief in their ability to make a career decision increased, their negative thoughts associated with the career decision-making process decreased. Likewise, as students' level of negative career thinking increased their belief in ability to make a career decision decreased.

Pearson product moment correlations were also calculated to examine relationships among the subscales of the CTI and CDMSE-SF. As shown in Table 8, significant inverse correlations were found between career decision self-efficacy and the Decision-Making Confusion ($r = -.55$) and Commitment Anxiety ($r = .31$) subscales. These results indicate a relationship between level of career decision self-efficacy and negative thinking, confusion, and anxiety surrounding the career decision-making process. The highest subscale correlations were found between Occupational Information ($r = -.52$), Goal Selection ($r = -.52$) of the CDMSE-SF and total negative career thinking. As well, Goal Selection was significantly inversely correlated with Decision-Making Confusion ($r = -.55$) and Commitment Anxiety ($r = -.40$). These relationships among career decision self-efficacy and negative career thinking suggest a significant relationship between how

students' think about making a career decision and their belief in their ability to undertake specific tasks necessary to make a decision.

Research Question 4

What are the relationships among negative career thinking and the dimensions of perfectionism?

Relationship between Career Thinking and Perfectionism

Pearson product moment correlations were calculated to assess the relationship between students' negative career thinking and their experience of High Standards and Discrepancy from the APS-R. As Table 8 indicates, there were no significant relationships between total negative career thinking, Commitment Anxiety, External Conflict subscales and High Standards. Only one CTI subscale correlated with High Standards, finding a significant inverse relationship between Decision-Making Confusion and High Standards ($r = -.30$). The significant relationship indicated the higher standards these students held for themselves the less confusion they experienced around the decision-making process.

The Discrepancy subscale of the APS-R had more significant relationships with negative career thinking and the corresponding subscales. Significant positive relationships were found between the Discrepancy subscale of the APS-R and total negative career thinking ($r = .29$), as well as the Commitment Anxiety ($r = .35$) and External Conflict ($r = .31$) subscales of the CTI. These results suggest the more negative career thinking, including anxiety and conflict associated with this thinking, the more discrepancy experienced on the APS-R. The association between discrepancy and

negative career beliefs corresponds with Slaney et al. (2000) findings that the discrepancy scale seems to provide a conceptualization of the negative aspects of perfectionism.

Relationship between Career Decision Self-Efficacy and Perfectionism

Pearson product moment correlations were calculated to assess the relationship between students' career decision self-efficacy and their experience of high standards and discrepancy from the APS-R. As Table 8 indicates, there were no significant relationships between total career decision self-efficacy, its' corresponding subscales and the Discrepancy subscale of the APS-R. There were, however, significant positive relationships were found between career decision self-efficacy ($r=.33$), its' subscales, and the High Standards subscale of the APS-R. The association between holding high standards and career decision self-efficacy, self-appraisal, goal selection, planning, and problem-solving, corresponds with Slaney et al. (2000) findings that the High Standards subscale seems to provide a conceptualization of positive aspects of perfectionism.

Table 8.

Correlations between Negative Career Thinking, Career Decision Self-Efficacy, and Perfectionism Measures

Measure	CDMSE	Self	Occ	Goal	Plan	Problem	CTI	DMC	CA	EC	H.S.
CDMSE	-										
Self	.85**	-									
Occ	.74**	.45**	-								
Goal	.78**	.68**	.38**	-							
Plan	.86**	.71**	.57**	.59**	-						
Problem	.86**	.66**	.57**	.57**	.76**	-					
CTI	-.52**	-.26*	-.52**	-.52**	-.47**	-.43**	-				
DMC	-.55**	-.43**	-.33**	-.55**	-.46**	-.44**	.96**	-			
CA	-.31**	-.27*	-.11	-.40**	-.29*	-.17	.77**	.62**	-		
EC	-.22	-.21	-.01	-.20	-.27*	-.27*	.67**	.52**	.42**	-	
H.S.	.33**	.27*	.19	.27*	.32**	.31**	-.21	-.30**	.11	-.12	-
Disc.	-.14	-.22	.03	-.13	-.16	-.12	.29*	.21	.35**	.31**	.17

Note. CDMSE = Career Decision Self-efficacy; Self = Self-Appraisal; Occ = Occupational Information; Goal = Goal Selection; Plan = Planning, Problem = Problem Solving; CTI = Career Thoughts Inventory; DMC = Decision Making Confusion; CA = Commitment Anxiety; EC = External Conflict; H.S. = High Standards; Disc. = Discrepancy.

* significant at the .05 level. ** significant at the .01 level.

Comparison of Perfectionism with Career Beliefs

Due to the importance of differentiating adaptive and maladaptive perfectionism, a series of univariate parametric and nonparametric tests were conducted to examine mean differences between adaptive, maladaptive and nonperfectionists' experience of negative career thinking and career decision self-efficacy. The test results are reported if $p < .05$ in order to explore trends concerning the influence of types of perfectionism on career beliefs.

In order to compare types of perfectionism with negative career thinking, the Kruskal-Wallis test, a nonparametric alternative to ANOVA was performed, followed by Mann-Whitney U follow-up tests to determine differences. Also, due to age group differences found between types of perfectionism and negative career thinking, age was also considered in these analyses. The relationship between types of perfectionism and career decision self-efficacy was assessed using a one-way ANOVA, followed by post-hoc Tukey tests.

Perfectionists, nonperfectionists, age and negative career thinking. This study sought information on the differences between specific types of perfectionists' (adaptive, maladaptive and nonperfectionists) career beliefs. With age being a factor for both negative career thinking and within two types of perfectionism (perfectionists and nonperfectionists) a univariate factorial ANOVA was first conducted using negative career thoughts as the dependent variable, and age and two types of perfectionism as independent variables. Due to inadequate cell size, the maladaptive and adaptive perfectionists were combined into perfectionists for purposes of this comparison. As Table 9 depicts, no differences were found for a main effect or interaction between two

types of perfectionism and age with negative career thinking, indicating these variables were independent.

Table 9.

Factorial Analysis of Variance for Negative Career Thinking, Perfectionism, Age

		<u>F</u>
Source	<u>df</u>	<u>Negative Career Thinking</u>
	Between Subjects	
Perfectionism (P)	1	1.87
Age (A)	2	2.54
P x A	2	.37
Error	67	(300.89)

Note. Value enclosed in parentheses represents mean square error. Perfectionism depicts two groups, perfectionist and nonperfectionist. * $p < .05$

Adaptive, maladaptive, nonperfectionists, and negative career thinking. As Table 10 illustrates, considerable differences exist between the means of adaptive perfectionists' negative career thinking, and their maladaptive and nonperfectionist counterparts. Therefore, A Kruskal-Wallis one-way ANOVA was conducted comparing the three types of perfectionists' level of negative career thinking. Adaptive perfectionists had the lowest level of negative career thinking ($M=50.00$, 54th percentile), while non-perfectionists ($M=68.80$, 86th percentile) had the highest level of negative career thinking, with maladaptive perfectionists' negative career thinking ($M=66.88$, 84th percentile) almost equivalent to the non-perfectionists. The Kruskal-Wallis results indicate a significant difference between the three types of perfectionists' experience of negative career thinking, $\chi^2(2, 73)=8.94$, $p=.01$.

Table 10.

Means, Standard Deviations of Perfectionists' Career Beliefs

Variable	<u>Perfectionists</u>		<u>Nonperfectionists</u>		<u>Perfectionists</u>		<u>Nonperfectionists</u>			
	n	<u>M</u>	n	<u>M</u>	<u>Adaptive</u>		<u>Maladaptive</u>		n	<u>M</u>
					n	<u>M</u>	n	<u>M</u>		
Negative Career Thinking	27	60.63 (21.27)	46	68.80 (15.29)	10	50.00 (16.19)	17	66.88 (21.81)	46	68.80 (15.29)
Career Decision Self-efficacy	27	90.11 (13.22)	46	81.45 (11.69)	10	94.70 (8.47)	17	87.41 (14.83)	49	82.03 (13.39)

Note. Values enclosed in parentheses represent standard deviations.

As shown in Table 11, Mann-Whitney U analyses indicate a significant difference between adaptive and nonperfectionists negative career thinking. No significant difference was found between maladaptive and nonperfectionists level of negative career thinking. While adaptive and maladaptive perfectionists have considerable mean differences, the Mann-Whitney U comparison of mean ranks found these differences to be nonsignificant at $p < .05$ level. While maladaptive perfectionists, on average, had higher negative career thinking than the adaptive perfectionists these results were insignificant. Previous studies support maladaptive perfectionism's association with negative constructs, and adaptive with more positive constructs (Johnson & Slaney, 1996; Rice, Ashby, & Slaney, 1998; Slaney et al., 2000). This study supports previous findings that adaptive perfectionism is associated with more positive constructs, and brings this association into the career realm.

Table 11.

Mann Whitney U Comparisons for Perfectionism Groups and Negative Career Thinking

Comparisons	<u>Mean Rank</u>	<u>U</u>	<u>z</u>	<u>p</u>
Adaptive x Maladaptive	10.10 16.29	46.00	-1.96	.05
Adaptive x Nonperfectionist	14.00 31.65	85.00	-3.10	.002**
Maladaptive x Nonperfectionist	30.56 32.53	366.50	-.38	.70

** $p < .01$

Adaptive, maladaptive, nonperfectionists and career decision self-efficacy. A one-way ANOVA was conducted to investigate perfectionists' level of career decision

self-efficacy, differentiating adaptive, maladaptive and nonperfectionists' experience of career decision self-efficacy. As Table 10 indicates, considerable differences existed between adaptive perfectionists' career decision self-efficacy and their maladaptive and nonperfectionist counterparts. The ANOVA results indicated a significant difference between the three types of perfectionists' experience of career decision self-efficacy, $F(2, 73)=4.48, p=.02$. Post hoc Tukey analysis found the significant difference to be between adaptive perfectionists and nonperfectionists, $p=.02$. Therefore, adaptive perfectionists had significantly higher career self-efficacy than the nonperfectionists in this sample, with adaptive perfectionists having much confidence in their ability to make a career decision, while nonperfectionists having only moderate confidence in their ability. Significant differences were not reported between adaptive and maladaptive perfectionists, or maladaptive and nonperfectionists experience of career decision self-efficacy.

Summary

This study found undergraduates involved in the career counselling process to have, on average, moderately high levels of negative career thinking. At the same time, this sample had moderate confidence in their ability to make a career decision. The majority of these undergraduates were nonperfectionists, of the perfectionists, however, the majority were identified as maladaptive as opposed to adaptive. No significant gender differences were found within these students' experience of negative career thinking, career decision self-efficacy or perfectionism. Significant age differences were found between the younger and older age groups level of negative thinking and type of perfectionism.

Significant inverse relationships were found between career decision self-efficacy and negative career thinking and their subscales. Likewise, significant relationships were found between the High Standards and Discrepancy subscales measuring perfectionism, and negative career thinking and career decision self-efficacy measures.

Finally, differences were found between the three types of perfectionists, identified as maladaptive, adaptive and nonperfectionist, and their level of negative career thinking. Likewise, significant differences existed between these groups of perfectionists' experience of career decision self-efficacy. Adaptive perfectionists were found to have the lowest level of negative career thinking and the highest level of career decision self-efficacy. Maladaptive and nonperfectionists were found to have almost equivalent experiences of both negative thinking and career decision self-efficacy, but only nonperfectionists scores significantly differed from adaptive perfectionists.

CHAPTER 5

Discussion

This study examined the association between negative career thinking, career decision self-efficacy and perfectionistic beliefs of undergraduate students seeking career counselling. This chapter will first provide a discussion of the significant results, in comparisons to previous empirical and theoretical literature related to career beliefs. Next the strengths and limitations of the current study will be discussed, followed by the implications of the findings for career counselling practices and suggestions for future research.

Main Findings

The main findings of this study were that: (1) this sample of students seeking career counselling had elevated levels of negative career thinking, moderate beliefs in their ability to make a career decision, and mostly held nonperfectionistic beliefs; (2) of those considered perfectionists, the majority were identified as maladaptive as opposed to adaptive perfectionists; (3) age group was a factor in relation to negative career thinking and perfectionism; (4) there were strong relationships between negative career thinking, career decision self-efficacy and perfectionism measures; (5) the different types of perfectionists experienced negative career thinking and career decision self-efficacy differentially.

Discussion of Post-Secondary Students' Beliefs

This sample of undergraduate students seeking career counselling had higher than average levels of negative career thinking. These clients' average level of negative career thinking, decision-making confusion, commitment anxiety, and external conflict were

greater than the normative sample, reported by Sampson et al. (1996). At the same time these students had moderate confidence in their ability to perform tasks necessary to make a career decision, similar to, but slightly higher than the normative sample reported by Betz and Taylor (2000).

The findings that this sample had slightly different levels of career beliefs in comparison to the normative samples could be due to demographic differences and that participants were a sample of students seeking career counselling. The normative sample, reported by Sampson et al. (1996), included clients involved in career counselling, however their sample included both undergraduates and adults. The Betz and Taylor (2000) sample included only undergraduate students. Previous research found career decision self-efficacy to be influenced by the treatment factor of career counselling (Luzzo & Day 1995; Luzzo et al., 1996). Findings in this study support Luzzo's (1996) suggestion that because those seeking career counselling are already in a form of decision making behaviour, they may have increased levels of self-efficacy compared to those not involved in the counselling process.

The findings that Goal Selection had the lowest subscale scores indicated this sample had less confidence in this task than other career decision-making tasks measured by the CDMSE-SF. The purpose of career counselling is usually to select a career goal (Magnusson, 1992). Although, this sample still had moderate confidence in their ability to select a career goal, it is important to note that this task was rated lower than self appraisal, occupational information, problem solving, and planning. The place in the career counselling process at which these participants completed the research package could also be an influence on subscale scores.

There appears to be a strong inverse relationship between negative career thinking and career decision self-efficacy, suggesting the importance of understanding the different beliefs involved in the career decision-making process. Previous research has found relationships with overcoming obstacles, exploring career options and flexibility (Niles & Sowa, 1992); this study extends the association between career decision self-efficacy and negative career beliefs. These findings suggest that negative thinking potentially increases as the level of belief in ability to perform tasks to make an effective career decision decreases.

Some of the strongest relationships found were between students' belief in their ability to select a career goal and confusion and anxiety surrounding the career decision-making process. An important hoped for outcome of career counselling is a selection of a career goal (Magnusson, 1992). These findings indicate that if a client's belief in their ability to select a career goal is low, they may also experience confusion and anxiety around the career decision-making process. Likewise, this sample's belief in their ability to gather occupational information inversely related to overall negative thinking as well as decision-making confusion, although this task was the one for which the sample had the most confidence. The results of these comparisons suggest negative career beliefs may have an influence on specific career tasks involved in the career decision-making process. These findings also support, and extend, previous research associating negative thinking with less vocational identity, certainty, and knowledge about occupations (Sampson et al., 1998) to include goal selection.

Overall, this sample of undergraduates seeking career counselling indicated moderately high levels of negative career thinking, in the 82nd percentile in comparison to

college students. This finding suggests that negative career beliefs play a role in the career decision-making process even though they are generally not explicitly targeted in the counselling process. According to Sampson et al. (1996), this sample's average External Conflict subscale score falls within the 96th percentile in comparison to other college students, suggesting students seeking career counselling experience confusion about choosing a career to please others or oneself and may be unable to differentiate which perceptions from others are important input for decision making. Both Decision Making Confusion and Commitment Anxiety fall within the 79th percentile in comparison to college students, suggesting a lack of clarity in understanding the career process and anxiety about the outcome of the career decision making process (Sampson et al., 1996).

While this sample had moderate confidence in their ability to make a career decision, participants still indicated moderately high levels of negative career thinking. The findings of moderately high positive career beliefs alongside negative career beliefs support Borders and Archadel's (1987) suggestion that core self-beliefs may underlie self-efficacy expectations. Another important consideration is that career decision self-efficacy can act as a mediator and moderator to other career variables (Betz & Hackett, 1997; Jex & Gudanowski, 1992; Solberg, 1998), suggesting career decision self-efficacy may have moderated the level of negative career beliefs in this sample. In other words, the level of career decision self-efficacy may buffer the experience of negative career beliefs experienced by these career clients.

Discussion of Post-Secondary Students' Perfectionism

The participants' experience of perfectionism differentiated them into three separate groups: adaptive perfectionists, maladaptive perfectionists, and

nonperfectionists. While the majority of this sample was classified into the nonperfectionist group, more perfectionists experienced maladaptive perfectionism than adaptive perfectionism. These three types of perfectionists involved in the career counselling process differentially experienced negative career thinking and career decision self-efficacy. These findings provide support for the multidimensional approach to perfectionism more recently examined in the literature (e.g. Kottman & Ashby, 1999; LoCicero & Ashby, 2000; Slaney & Johnson, 1992; Slaney et al., 2000).

Types of perfectionists' experience of negative career thinking. The significant findings of this study indicate that adaptive perfectionists experience negative career thinking differently from their nonperfectionist counterparts. In this study, being adaptive in one's perfectionism is experienced with less negative career thinking (54th percentile) than the nonperfectionists (86th percentile), and their maladaptive (84th percentile) counterparts, however only the relationship with nonperfectionists was significant. The findings of adaptive perfectionists (operationalized as having high standards) having significantly less negative career thinking than the nonperfectionists supports recent conceptualizations of perfectionism as having positive dimensions (Blatt, 1995; Rice et al., 1998). These findings extend previous research associating perfectionism in undergraduates with positive attributes such as increased performance (Brown et al., 1999; Flett, Sawatzky, & Hewitt, 1995), and being less likely to attribute grades to negative factors about themselves (Brown et al., 1999), to include having less negative beliefs surrounding the career decision-making process.

The finding that maladaptive perfectionists (operationalized as having high standards but who also had high levels of discrepancy concerns) had elevated levels of

negative thinking adds support to the conceptualization of perfectionism as two-dimensional. These findings also confirm the importance of considering the influence of perfectionism on career decision-making. Interestingly, differences were not found between maladaptive and nonperfectionists' level of negative career thinking. This suggests that having high standards does not differentiate certain types of perfectionists from nonperfectionists in their type of career thinking, when perfectionists have a discrepancy between holding high standards and being unable to meet these standards. It is this discrepancy that may explain the similar levels of negative career thinking between maladaptive perfectionists and nonperfectionists.

The significant relationships found between the Discrepancy subscale and negative career thinking, commitment anxiety and external conflict also support previous research suggesting maladaptive aspects of perfectionism include the discrepancy between one's high standards and obtaining those set goals (Slaney et al., 2000). Findings from this study suggest the Discrepancy measure is strongly linked to negative career constructs including negative thinking, anxiety surrounding making a career decision and perceptions and expectations from significant others. Only one significant relationship was found between measures of negative career thinking and High Standards, finding an inverse relationship between High Standards and the Decision-Making Confusion subscale. This finding could be due to the CTI being developed to measure negative beliefs as opposed to positive beliefs and therefore not sensitive to measuring potential links with positive aspects of perfectionism.

Types of perfectionists' experience of career decision self-efficacy. Adaptive perfectionists experienced significantly more positive beliefs in their ability to make a

career decision than their nonperfectionist counterparts. These results are consistent with Brown et al.'s (1999) finding that those with high personal standards have more positive attributes about self. Adaptive perfectionists may have high self-efficacy beliefs in general. This study confirms adaptive perfectionists adhere to more positive beliefs in career decision-making. LoCicero and Ashby (2000) found adaptive perfectionists to have both higher general self-efficacy and social self-efficacy beliefs. The extent to which adaptive perfectionists' experience confidence in their ability to make a career decision supports previous research finding a positive dimension to perfectionism (Ashby & Kottman, 1996; Slaney et al. 2000). Undergraduates identified as perfectionists with high personal standards may have more positive attributes for not only their academic performance (Brown et al., 1999) but also more positive attributes about their ability to make a career decision while in the career counselling process.

Numerous studies have found that students with perfectionistic beliefs, with maladaptive components, have more difficulty with academic performance (Arthur & Hayward, 1997; Slaney et al., 2000), poorer quality of performances and self-doubt in situations perceived to be threatening (Frost & Marten, 1990), associate more negative attributes to themselves (Brown et al., 1999), and associate both positive and negative outcomes with external attributes (Flett et al., 1998). The findings that maladaptive perfectionists have moderate confidence in their ability to complete career decision-making tasks challenge assumptions about how perfectionism may be problematic. Theoretically, it makes sense that beliefs in one's ability may be high for both types of perfectionists, since both adaptive and maladaptive have high standards for themselves.

It is in the discrepancy between the set ideals and attaining these ideals where negative consequences of perfectionism play a role (Slaney et al., 2000).

Overall, the relationships found between perfectionism and types of career beliefs support previous research findings that perfectionism has both adaptive and maladaptive components. The findings of this study extend previous notions about the adaptive components of perfectionism, such as setting high personal standards, working hard and striving to achieve (Blatt, 1995; Dunkley et al, 2000; Hill, et al., 1997; Mitchelson & Burns, 1998; Slaney et al., 1995), to include holding more positive beliefs about the career decision-making process. These findings also extend the conceptualization of maladaptive perfectionism from concern over mistakes, doubting of actions, and striving to reach unattainable goals (Dunkley et al, 2000; Halgin & Leahy, 1989) to include having more negative thinking about career decision-making.

Discussion of Age and Gender Influences.

This sample of undergraduates in the career decision-making process indicate no gender differences in their experience of negative career thinking, career decision self-efficacy and types of perfectionism. The lack of gender difference does replicate previous findings with negative career thinking (Holland, Johnston, Asana & Polys, 1993; Sampson et al., 1996; Stumpf & Lockhart, 1987), and career decision self-efficacy (Betz et al., 1996; Betz & Taylor, 2001; Betz & Klein Voyten, 1997; Taylor & Betz, 1983). Although gender differences have been found in some research with perfectionism (Slaney & Ashby, 1996), these differences have been equivocal. Some studies find men to experience less perfectionism than women, but women to experience more healthy types of perfectionism (Parker & Mills, 1996) and other studies find women

to evaluate their perfectionism more negatively than men (Slaney & Ashby, 1996). This study corroborates recent work with the APS-R finding no gender differences in the experience of adaptive, maladaptive and nonperfectionists. The lack of gender differences in all beliefs studied in this research may be related to these men and women experiencing similar learning experiences about setting high standards and beliefs about the career development process. Male and female students seeking career counselling share a central focus on setting and pursuing a career goal, and may share similar learned attitudes about this process.

Perhaps one of the most significant findings of this study is that there are age differences within negative career thinking and between types of perfectionists. Age has not been an influence in other studies of perfectionism (Hayward & Arthur, 1998), however some of the theoretical literature has hypothesized that perfectionism may increase with age (e.g. King, 1986). Age and cognitive development has been found to be a factor in level of negative career thinking (Sampson et al., 1996), and college year has had an effect on the reliance on psychological tests (Peng & Herr, 1999). Results from this study support Sampson et al.'s (1996) finding that negative career thinking tends to decrease with age. Therefore, cognitive development is an important consideration for the career development process (Keller et al., 1982). Significant differences for the younger age group in their negative career thinking as well as their variation between being perfectionistic and not perfectionistic suggest cognitive development influences career beliefs. Literature suggests undergraduates progress through different stages of intellectual process (Keller et al., 1982). The results of this study suggest these cognitive processes may influence the types of career beliefs held by

different age groups seeking career counselling. Therefore, cognitive development and life experience is an important consideration for the career counselling process and may limit direct entry students' perceptions of career development.

The relationship between perfectionism and negative career thinking was not influenced by gender or age in this sample. Further investigations would be necessary in order to determine the influence of age, particularly extending beyond perfectionists and nonperfectionists to include adaptive, maladaptive and nonperfectionists.

Strengths and Limitations

A key strength of this study is the examination of career beliefs in the career decision-making process. Shaefer Enright (1996) emphasized the importance of addressing the types of beliefs that are likely to shape the career decision-making process. The current findings provide important information regarding the prevalence of career beliefs, including negative career thinking, career decision self-efficacy and perfectionism, for post secondary students seeking career counselling. Correlational results suggest an overlap among the three different beliefs measured in this study. The findings also suggest both positive and negative beliefs are involved in this population of clients' career decision-making process.

The differential relationships of adaptive perfectionists to negative career thinking and career decision self-efficacy provide further evidence of the positive components to perfectionism, measured by high standards. The prevalence of negative career thinking among maladaptive perfectionists also provides evidence for negative components to perfectionism, measured by discrepancy. This study supports the notion that

perfectionism dimensions are differentially related to negative career thinking and career decision self-efficacy.

Another strength of this study is including perfectionistic beliefs as a component of career beliefs. Few investigations of perfectionism have been conducted in career development. This study expands existing research by investigating the role of perfectionistic tendencies in student career clients' experience of career beliefs. The way in which perfectionism was investigated was another strength. Recent conceptualizations of perfectionism define perfectionism as a multidimensional construct having both adaptive and maladaptive components and the results of this study support this view.

Another strength is the consideration of those students involved in the career counselling process. A number of studies have investigated career beliefs, career decision self-efficacy and perfectionism among undergraduates, however, few have considered those seeking career counselling. While normative data has been developed for both the CTI and CDMSE-SF the comparison groups are from undergraduate populations. The findings of this study expand existing knowledge about the career counselling process and the beliefs of undergraduates involved in the process.

Along with the strengths of this study there are certain limitations that must be acknowledged. The sample was comprised of student volunteers involved in the career counselling process. However, this study did not account for the goals these students hoped to achieve by seeking career counselling. Therefore, it cannot be assumed that each participant was at the same place in the career decision-making process. Also, it is not possible to generalize these results to larger undergraduate populations, or clients seeking career counselling beyond the post-secondary environment. As students were

three different institutions, rather than from a single school, they may be more representative of other post-secondary students seeking career counselling than subjects of studies that may utilize only one academic institution. However, the extent to which the results would apply to the general population can only be established by further research.

The second limitation involves the sample being mostly from the Western-European Canadian ethnic group. Although there were participants from different ethnic groups, the uneven sample limited the ability to generalize career beliefs to students from different cultural groups.

The final limitation involves the interpretation of causal relationships. The current findings identified links between positive and negative career beliefs. However, these results cannot be used to establish causal relationships between more positive or negative beliefs and perfectionism. It is possible that a number of other factors, not investigated in this study, are influential with these career beliefs for the career decision-making process.

Implications

Given the above strengths and limitations, the following is a discussion of the implications of the types of beliefs involved in post-secondary students' career decision-making, based on this sample of undergraduate students seeking career counselling.

The main goal of this study was to investigate the types of beliefs most prominent in post-secondary students seeking career counselling during the decision making process. The main implications of this study are that students seeking career counselling adhere to negative career beliefs, and at the same time have moderate beliefs in their

ability to make a career decision. Also, students' perfectionistic tendencies potentially impact their career decision-making process. Therefore, the findings of this study emphasize the importance for counsellors to identify and address the types of career beliefs that are likely to shape the career decision process (Schaefer Enright, 1996), such as negative career thinking, career decision self-efficacy, and perfectionism. Specifically, counsellors should be aware of those beliefs that interfere and potentially help the decision-making process.

Recommendations for Counselling

Counsellors should explore the role of negative career thinking in students' ability to make a career decision. Negative statements have an influence on client's ability to utilize occupational information and can lead to career indecision and inappropriate choices (Elliott, 1995). As the results of this study suggest, students in the career counselling process adhere to higher than average levels of negative thinking, these beliefs potentially hinder their ability to make a career decision. Saunders et al. (2000) discuss the importance of addressing the beliefs that inhibit the ability to engage in career decision-making behaviours, and for counsellors to help clients effectively obtain and use information to make a decision. Career counsellors effective in assisting clients in altering negative beliefs, and enhancing positive self-statements, can increase their clients' effective career problem solving leading to less dependence upon practitioner assistance in making career choices (Sampson et al., 1996).

This research identifies beliefs surrounding the perception and influence of significant others to career decision-making as extremely important. These findings support previous notions that clients involved in the career counselling process adhere to

myths regarding choosing a vocation to satisfy important people in their life (Nevo, 1987). The results also support previous research, finding undergraduates to often have difficulty differentiating which perceptions from others are important input when making a career decision (Sampson et al., 1996; Sampson et al., 1998), and often feel external pressure to meet expectations of significant others (Hewitt & Flett, 1991). Therefore, counsellor awareness about the specific types of beliefs to which clients adhere can help clients examine the influences of those beliefs involved in a career decision-making process.

Since age differences were found, it is also important for counsellors to be aware of developmental differences within and between age groups. The importance of identifying college year and age in relationship to certain types of beliefs are important aspects to helping identify what beliefs may be interfering with the career counselling process (Keller et al., 1982; Peng & Herr, 1999). Different age groups may hold certain types of beliefs more strongly than others. For example, younger clients may believe tests and counsellors should have the answer to their career choice, making it necessary for counsellors to explain the limitations of the testing process (Nevo, 1987; Stead & Watson, 1993).

Counsellors should also be aware of students' level of perceived ability to make and follow through with a career decision. Students in the career counselling process do indicate moderate belief in their ability to make a career decision. It is important, however, for counsellors to be aware of what tasks the clients may feel more confident and those for which they have less confidence. Clients will potentially have multiple areas of lower confidence and while some generalizations may occur, it is useful for

counsellors to target each decision-making task (McAuliffe, 1992). This way, counsellors can work to facilitate those in which confidence already exists and work to build in exercises and interventions to enhance those tasks in which confidence is needed.

Another important implication is that beliefs may be held because of limited learning opportunities (Barak et al., 1989; Krumboltz & Jackson, 1993; Mitchell & Krumboltz, 1996) or due to a lack of awareness of the process of career development and counselling (Dorn & Welch, 1985). Therefore, counsellors can incorporate new learning experiencing into the career counselling process to enhance beliefs that will promote effective career decision-making behaviours. If clients have more accurate self-appraisal they will be more effective problem-solvers and have a more positive self-concept (Heppner et al., 1983). As well, counsellors can explain to clients that career decision self-efficacy may be positively influenced by participating in career counselling interventions. Building learning experiences into the counselling process can support clients to engage in more exploratory activities regarding career choice (Luzzo et al., 1996).

A type of belief not previously considered in depth in the career counselling literature is that of perfectionism. As these results indicate, the type of perfectionism held by students seeking career counselling may have an impact on the types of thinking and beliefs about their ability to make a career decision. These perfectionistic beliefs can potentially impact career choice, performance, productivity, satisfaction and adjustment (Slaney et al., 1995). Certain types of perfectionists may have more difficulty making a career decision (Leong & Chervinko, 1996), and findings from this study suggest counsellors should consider the influence of perfectionism to the career decision-making

process. For example, maladaptive perfectionists in this study experienced moderately high levels of negative career thinking. Previous research suggests holding perfectionistic beliefs can interfere in the career development process through striving for unattainable goals (Halgin & Leahy, 1989), lack of action toward reaching goals (Adderholdt-Elliott, 1990; Flett, Sawatzky, & Hewitt, 1995), and being indecisive (Frost & Shows, 1993). Therefore, those students with high standards, but a discrepancy between those set standards and belief in what is attainable will need help to set appropriate goals, build confidence in their ability to make a career decision and, ultimately, meet career goals.

Alternatively, those perfectionists identified as adaptive had less overall negative career thinking, and higher beliefs in their ability to make a career decision, than the nonperfectionists in this sample. These findings suggest those students with high standards for themselves may be able to set high career goals and still have much confidence in their ability to make a career decision. Previous literature identifies positive elements of perfectionism in undergraduates such as achieving good grades and pursuing high ideals and goals (Halgin & Leahy, 1989; Hamachek, 1978; King, 1986; Slaney et al., 2000). Therefore, an important consideration for career counsellors is to listen for signs of perfectionistic thinking and work to identify what role the perfectionistic beliefs may play in the decision-making process.

Future Research

The results of this study confirm the importance of career beliefs in the career decision-making process and suggest several other important directions for future research. Further investigations into the role of career beliefs are required to develop an

understanding of how beliefs interfere or enhance the career decision-making process. Amundson (1997) suggests different types of beliefs have an impact at different phases of the counselling process. While this sample of students were involved in the career counselling process, it was not determined what goals participants were hoping to achieve through counselling. Therefore, more research is needed to determine at what stage negative beliefs may be a detriment to effective career counselling outcomes. As well, future studies could consider beliefs in relation to the types of outcomes for which clients seek career counselling.

Future research should also consider the interaction of positive and negative beliefs in career decision-making. Self-efficacy beliefs can moderate or mediate career outcomes (Betz & Hackett, 1997; Jex & Gudanowski, 1992; Solberg, 1998). Important questions surrounding self-efficacy's influence to enhance positive beliefs, or reduce negative beliefs, arose from this study. Therefore, self-efficacy as a moderator to other career beliefs is an important consideration for future studies.

Although this study brought an important cognitive construct, perfectionism, into the study of career development, more research is needed in this area. Very few studies, to date, have examined perfectionism in relation to career decision-making. Findings from previous studies suggest maladaptive components to perfectionism (Leong & Chervinko, 1996; Osborn, 1998), however different measures of perfectionism were used. Therefore, more research is needed in career development examining the multidimensions of perfectionism, specifically the ways in which adaptive, maladaptive and nonperfectionists experience career decision-making.

Summary

The main findings of this study were that post-secondary students seeking career counselling adhere to both positive and negative beliefs while making a career decision. Also, these students experienced different types of perfectionism, more maladaptive than adaptive in those identified as perfectionists, and adaptive perfectionists differentially experienced negative career thinking and career decision self-efficacy. Finally, age had a significant influence on negative career thinking and perfectionism.

The findings of this study provide support for the examination of career beliefs in the career counselling process, which suggest that both self-efficacy and negative career thinking occur and need to be addressed. The findings regarding moderate levels of career decision self-efficacy while elevated negative career thinking suggests an interaction between positive and negative beliefs that could influence career decision-making outcomes.

The findings that this sample consisted of different types of perfectionists, substantiates the conceptualization of perfectionism having both adaptive and maladaptive components, while extending the understanding into career development. The findings of this study provide support for adaptive perfectionism to include positive constructs, while maladaptive includes more negative, particularly in relation to negative career thinking.

This study illustrates the importance of examining different types of beliefs involved in the career decision-making process. The findings suggest that adaptive perfectionists may hold more positive beliefs about their ability to make a career decision and less negative thinking about themselves and the career counselling process, in

relation to nonperfectionists. While not significantly different from adaptive perfectionists, maladaptive perfectionists did experience elevated levels of negative career thinking and is an important implication for the career counselling process.

The findings from this study suggest negative career thinking, career decision self-efficacy and perfectionism are experienced by post-secondary students seeking career counselling. Therefore, counsellors and other career development services need to become aware of the beliefs involved in their clients' career decision-making experience. Particularly, cognitive processes of clients from different age groups may be an indicator of specific types of beliefs or the strength of those beliefs being used when making a career decision. By educating clients about the career decision-making process and developing an understanding of their beliefs counsellors can assist clients to enhance their beliefs in ability to make effective career decisions and circumvent those beliefs that may interfere in the career decision-making process.

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APPENDIX A

Participant Information Form

Please provide the following information in addition to the three enclosed questionnaires.

Age (please identify): _____

What Post-Secondary Institute are you attending? _____

Sex (check one):

- ☐ Female
☐ Male

Total number of years in Post-Secondary education (check one):

- ☐ One
☐ Two
☐ Three
☐ Four
☐ More than four

Type of program:

- ☐ Diploma program
☐ Undergraduate degree program
☐ Graduate program

Ethnic Group (check one):

- | | |
|---|---|
| ☐ Asian-Canadian | ☐ Latin-Canadian |
| ☐ African-Canadian | ☐ Lebanese-Canadian |
| ☐ East Indian-Canadian | ☐ Russian-Canadian |
| ☐ Filipino-Canadian | ☐ Ukrainian-Canadian |
| ☐ First Nation | ☐ WesternEuropean-Canadian |

Other (please specify): _____

Do you have a disability (learning or physical)?

- ☐ No
☐ Yes

APPENDIX B

Information Sheet

Feeling unsure about your future career path???

Often students:

Hope a career test, or career counsellor, will give the answers to career decisions and plans.

Have an idea about possible career options but feel unsure about their ability to complete steps leading toward the possibility.

Feel anxious about making the 'right' choice in choosing a major, or career.

Believe the career/major you choose should define who you are as a person.

Feel pressure from significant others to make a career choice.

Worry that making a career decision now will be irreversible in the future.

Think career development requires only one decision and that it needs to be done right away.

If you can relate to any of these statements, and you are 18 years of age or older, I invite you to participate in this research study.

The purpose of this study is to take a closer look at the career beliefs of students, such as yourself, who may be unsure about choosing a major or the career field to pursue in the future.

In helping with this research, you are invited to a follow-up group feedback session about career beliefs and the career development process, to be held monthly at the University of Calgary Counselling & Student Development Centre, dates and times are found within the research package.

If you are 18 years of age or older and seeking career counselling, please consider completing the career beliefs package available through the Career Resource Administrator in the Career Resource Library. Most students would take 30 to 45 minutes to complete the questionnaires and the anonymity of your answers will be maintained.

APPENDIX C

Consent Form

Research Project Title: **The Career Beliefs of Post-Secondary Students Seeking Career Counselling**

Investigator: Trina Roll

This consent form, a copy of which has been given to you, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to contact the researcher listed below. Please take the time to read this carefully and to understand any accompanying information.

- The purpose of this research is to study career beliefs, career self-efficacy, and perfectionism in university and college students seeking career counselling.
- Often the career decision-making process can be difficult; therefore it is important to consider the beliefs of people, such as you, who are seeking career counselling. These beliefs include your belief in your ability to make a career decision; beliefs about choosing the perfect career, and beliefs you have about yourself. This research examines beliefs in order for career counsellors to better help students with career decisions.
- In addition to the assessment available through your campus counselling services, you are invited to complete these three additional questionnaires exploring your beliefs about career planning, decision-making, and perfectionism. You must be 18 years of age or older to participate.
- The package of questionnaires is available through the career resource administrator, or counselling office receptionist. Total time for completing the surveys should be approximately 30 - 45 minutes. **Please complete the three enclosed questionnaires, and demographic survey, and return to the administrator or receptionist sealed in the envelope provided.** You may complete the package at the counselling centre, or take the package and return it at a later time. If you plan to return later, please only take the package if you are certain you will complete the information and return it.
- Your anonymity will be maintained as no names are attached to the questionnaires; only myself, and my supervisor Dr. Nancy Arthur, will have access to the information. Only group results will be used in any information released for research results. The data will be kept in the researcher's locked filing cabinet and stored for 3 years following the completion of the study.
- However, if you wish to receive a written feedback summary of your results please fill in your name and address on the bottom of this page and indicate you want feedback by checking the box. The summary and the questionnaires will be returned to you and can be discussed further in the group feedback session.
- I invite all participants to a group feedback session discussing the importance of career beliefs, the inventories, and some general interpretation, to be held monthly. Attendance at the information session is optional and not a condition of participation in the research. Students who refuse participation in the research project do not in any way jeopardize their right to services provided through the counselling centre.

- Responding to the questionnaires may prompt you to think about yourself or your career in either positive or negative ways. If you should require, counselling services are available through the University of Calgary Counselling and Student Development Centre, phone 240-5893.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time. Your continued participation should be as informed as your initial contact, so you should feel free to ask for clarification or new information throughout your participation.

If you have any questions or concerns at any time during the research process, you may contact the researcher, Trina Roll at 272-0229, or her supervisor, Dr. Nancy Arthur at 220-6756.

If you have any questions concerning your rights as a possible participant in this research please contact Mrs. Patricia Evans, Research Services Office, Room 602 Earth Sciences, telephone: 220-3782.

Participant's Signature	_____	Date	_____
Investigator's Signature	_____	Date	_____
Witness Signature	_____	Date	_____

A copy of this consent form has been given to you to keep for your records and reference.

Do you want an individual summary of your results sent to your home?

☐ No

☐ Yes – please provide name and address (please print):

APPENDIX D

Career Decision Self-Efficacy Scale-Short Form CDMSE – Short Form

Career Questionnaire

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INSTRUCTIONS: For each statement below, please read carefully and indicate how much confidence you have that you could accomplish each of these tasks. Mark your answer in the line provided. There are 25 items to complete, please answer all 25 items.

NO CONFIDENCE AT ALL 1	VERY LITTLE CONFIDENCE 2	MODERATE CONFIDENCE 3	MUCH CONFIDENCE 4	COMPLETE CONFIDENCE 5
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Example: How much confidence do you have that you could:

Summarize the skills you have developed in the jobs you have held?

If your response is “Moderate Confidence” you would put a number 3 on the line provided.

HOW MUCH CONFIDENCE DO YOU HAVE THAT YOU COULD:

1. Find information in the library about occupations you are interested in. _____
2. Select one major from a list of potential majors you are considering. _____
3. Make a plan of your goals for the next five years. _____
4. Determine the steps to take if you are having academic trouble with an aspect of your chosen major. _____
5. Accurately assess your abilities. _____
6. Select one occupation from a list of potential occupations you are considering. _____
7. Determine the steps you need to take to successfully complete your chosen major. _____
8. Persistently work at your major or career goal even when you get frustrated. _____

9. Determine what your ideal job would be. _____
10. Find out the employment trends for an occupation over the next ten years. _____
11. Choose a career that will fit your preferred lifestyle. _____
12. Prepare a good resume. _____
13. Change majors if you did not like your first choice. _____
14. Decide what you value most in an occupation. _____
15. Find out about the average yearly earnings of people in an occupation. _____
16. Make a career decision and then not worry about whether it was right or wrong. _____
17. Change occupations if you are not satisfied with the one you enter. _____
18. Figure out what you are and are not ready to sacrifice to achieve your career goals. _____
19. Talk with a person already employed in the field you are interested in. _____
20. Choose a major or career that will fit your interests. _____
21. Identify employers, firms, institutions relevant to your career possibilities. _____
22. Define the type of lifestyle you would like to live. _____
23. Find information about graduate or professional schools. _____
24. Successfully manage the job interview process. _____
25. Identify some reasonable major or career alternatives if you are unable to get your first choice. _____

APPENDIX E

Almost Perfect Scale-Revised APS-R

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Instructions:

The following items are designed to measure attitudes people have toward themselves, their performance, and toward others. There are no right or wrong answers. Use your first impression and do not spend too much time on individual items in responding.

Respond to each of the items by using the scale below to describe your degree of agreement with each item. Fill in the appropriate number on the line that is provided. There are 59 items to complete, please respond to ALL 59 items.

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Agree 6	Strongly Agree 7
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1. I have high standards for my performance at work or at school. _____
2. If I can't be the best, I would rather not even try. _____
3. I have to admit that basically I'm a perfectionist. _____
4. I am an orderly person. _____
5. I often feel frustrated because I can't meet my goals. _____
6. Neatness is important to me. _____
7. If you don't expect much out of yourself you will never succeed. _____
8. My best just never seems to be good enough for me. _____
9. I think things should be put away in their place. _____
10. I have high expectations for myself. _____
11. I have trouble leaving things incomplete. _____
12. I rarely live up to my high standards. _____
13. I like to always be organized and disciplined. _____
14. I often think it is easier to do something myself than it is to get someone else to do it. _____
15. Doing my best never seems to be enough. _____
16. It bothers me to be distracted when I have work to do. _____
17. I set very high standards for myself. _____

18. Nothing short of perfect is acceptable. _____
19. I am never satisfied with my accomplishments. _____
20. I like to be very careful and precise when I measure things. _____
21. I expect the best from myself. _____
22. I often worry about not measuring up to my own expectations. _____
23. My performance rarely measures up to my standards. _____
24. I can generally meet the standards I set for myself. _____
25. I am not satisfied even when I know I have done my best. _____
26. I try to do my best at everything I do. _____
27. I am seldom able to meet my own high standards for performance. _____
28. I like to make list of tasks I have to do and then check them off as I do them. _____
29. I am hardly ever satisfied with my performance. _____
30. I can get pretty upset when I don't do as well as I think I should. _____
31. I hardly ever feel that what I've done is good enough. _____
32. When I don't meet my own standards, it doesn't bother me. _____
33. I think people should do their best or not bother. _____
34. If I don't perform well, I don't let it get me down. _____
35. I am aware that I set standards that are unrealistically high. _____
36. I usually feel pretty satisfied with what I do. _____
37. I have a strong need to strive for excellence. _____
38. I usually feel like what I've done is good enough. _____
39. I often feel disappointment after completing a task because I know I could have done better. _____
40. I wish I had closer relationships with my friends. _____
41. I hate to cry. _____
42. When I have a problem I should be able to solve it by myself. _____
43. I have trouble relaxing. _____
44. I tend to procrastinate so long that I never have enough time to do things right. _____

45. Seeking the help of a counselor would be hard. _____
46. I am fearful of making mistakes. _____
47. Relationships seem easier for other people. _____
48. Other people seem to be more efficient than I am. _____
49. When it comes to emotions I want to understand them so I can get rid of them. _____
50. Sometimes I feel like I could cry but I don't want to. _____
51. When I think of things I have to do I feel anxious. _____
52. I tend to put things off for as long as I can. _____
53. It is no good to let strong feelings show. _____
54. There are very few people in the world to whom I closely relate. _____
55. My standards are so high that I often procrastinate. _____
56. I find it hard to talk about my feelings. _____
57. I often feel anxious when I strive to complete a task. _____
58. Some people have told me I seem distant and cold. _____
59. I feel uncomfortable in intimate relationships. _____

APPENDIX F

The Career Thoughts Inventory CTI

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- | | | | | |
|--|----|---|---|----|
| 1. No field of study or occupation interests me. | SD | D | A | SA |
| 2. Almost all occupational information is slanted toward making the occupation look good. | SD | D | A | SA |
| 3. I get so depressed about choosing a field of study or occupation that I can't get started. | SD | D | A | SA |
| 4. I'll never understand myself well enough to make a good career choice. | SD | D | A | SA |
| 5. I can't think of any fields of study or occupations that would suit me. | SD | D | A | SA |
| 6. The views of important people in my life interfere with choosing a field of study or occupation. | SD | D | A | SA |
| 7. I know what I want to do, but I can't develop a plan for getting there. | SD | D | A | SA |
| 8. I get so anxious when I have to make decisions that I can hardly think. | SD | D | A | SA |
| 9. Whenever I've become interested in something, important people in my life disapprove. | SD | D | A | SA |
| 10. There are few jobs that have real meaning. | SD | D | A | SA |
| 11. I'm so frustrated with the process of choosing a field of study or occupation I just want to forget about it for now. | SD | D | A | SA |
| 12. I don't know why I can't find a field of study or occupation that seems interesting. | SD | D | A | SA |
| 13. I'll never find a field of study or occupation I really like. | SD | D | A | SA |
| 14. I'm always getting mixed messages about my career choice from important people in my life. | SD | D | A | SA |
| 15. Even though there are requirements for the field of study or occupation I'm considering, I don't believe they apply to my specific situation. | SD | D | A | SA |
| 16. I've tried to find a good occupation many times before, but I can't ever arrive at good decisions. | SD | D | A | SA |
| 17. My interests are always changing. | SD | D | A | SA |
| 18. Jobs change so fast it makes little sense to learn much about them. | SD | D | A | SA |
| 19. If I change my field of study or occupation, I will feel like a failure. | SD | D | A | SA |
| 20. Choosing an occupation is so complicated, I just can't get started. | SD | D | A | SA |
| 21. I'm afraid I'm overlooking an occupation. | SD | D | A | SA |
| 22. There are several fields of study or occupations that fit me, but I can't decide on the best one. | SD | D | A | SA |
| 23. I know what job I want, but someone's always putting obstacles in my way. | SD | D | A | SA |
| 24. People like counselors or teachers are better suited to solve my career problems. | SD | D | A | SA |
| 25. Even though I've taken career tests, I still don't know what field of study or occupation I like. | SD | D | A | SA |

- | | | | | |
|---|----|---|---|----|
| 26. My opinions about occupations change frequently. | SD | D | A | SA |
| 27. I'm so confused, I'll never be able to choose a field of study or occupation. | SD | D | A | SA |
| 28. The more I try to understand myself and find out about occupations, the more confused and discouraged I get. | SD | D | A | SA |
| 29. There are so many occupations to know about, I will never be able to narrow down the list to only a few. | SD | D | A | SA |
| 30. I can narrow down my occupational choices to a few, but I don't seem to be able to pick just one. | SD | D | A | SA |
| 31. Deciding on an occupation is hard, but taking action after making a choice will be harder. | SD | D | A | SA |
| 32. I can't be satisfied unless I can find the perfect occupation for me. | SD | D | A | SA |
| 33. I get upset when people ask me what I want to do with my life. | SD | D | A | SA |
| 34. I don't know how to find information about jobs in my field. | SD | D | A | SA |
| 35. I worry a great deal about choosing the right field of study or occupation. | SD | D | A | SA |
| 36. I'll never understand enough about occupations to make a good choice. ... | SD | D | A | SA |
| 37. My age limits my occupational choice. | SD | D | A | SA |
| 38. The hardest thing is settling on just one field of study or occupation. | SD | D | A | SA |
| 39. Finding a good job in my field is just a matter of luck. | SD | D | A | SA |
| 40. Making career choices is so complicated, I am unable to keep track of where I am in the process. | SD | D | A | SA |
| 41. My achievements must surpass my mother's or father's or my brother's or sister's. | SD | D | A | SA |
| 42. I know so little about the world of work. | SD | D | A | SA |
| 43. I'm embarrassed to let others know I haven't chosen a field of study or occupation. | SD | D | A | SA |
| 44. Choosing an occupation is so complex, I'll never be able to make a good choice. | SD | D | A | SA |
| 45. There are so many occupations that I like, I'll never be able to sort through them to find ones I like better than others. | SD | D | A | SA |
| 46. I need to choose a field of study or occupation that will please the important people in my life. | SD | D | A | SA |
| 47. I'm afraid if I try out my chosen occupation, I won't be successful. | SD | D | A | SA |
| 48. I can't trust that my career decisions will turn out well for me. | SD | D | A | SA |