LEVELS OF CAREER DECIDEDNESS AND NEGATIVE CAREER THINKING BY ATHLETIC STATUS, GENDER, AND ACADEMIC CLASS

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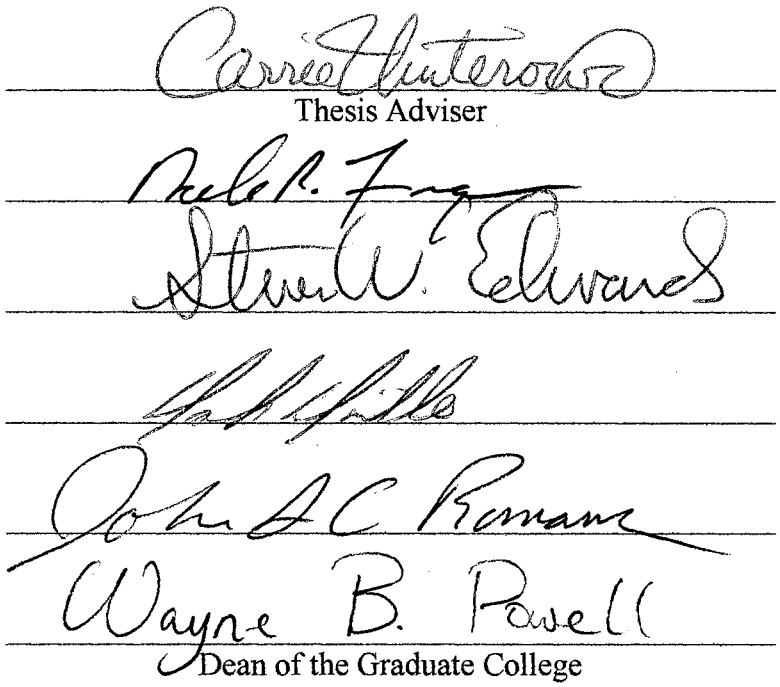

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CHAPTER ONE

INTRODUCTION

Over the past 20 years, there has been an increased interest in the lives of student athletes. A number of studies have demonstrated that collegiate athletes have a different "college" experience than do non-athletes (Bergandi & Wittig, 1984; Pinkerton, Hinz, & Barrow, 1989). As examples, some college athletes may find themselves to have celebrity status on campus or sustain dreams of signing a million dollar contract to play professional athletics (Chu, Segrave & Becker, 1985). Student athletes at the collegiate level have been found to differ from non-athletes in numerous ways. For example, college student athletes tend to have lower graduation rates (Purdy, Eitzen, & Hufnagel, 1985; Shiflett & Galante, 1985; Spivey & Jones, 1975), underutilize counseling services (Bergandi & Wittig, 1984), have lower career maturity (Kennedy & Dimick 1987), have lower ability to formulate educational and career plans (Blann, 1985; Sowa & Gressard, 1983), and base their self-esteem and identity on athletics (Baillie & Danish, 1992; Wolff & Lester, 1989) compared to non-athlete college students.

The process of career development appears to be qualitatively different for college athletes compared to non-athletes. Being a college athlete can sometimes delay the development of mature career decision-making including the selection of an academic major and subsequent career (Blann, 1985; Kennedy & Dimick, 1987; Remer, Tongate, & Watson, 1978; Shahnasarian, 1992; Sowa & Gressard, 1983).

The amount of attention student athletes give to athletic endeavors may detract from academic pursuits. Despite athletes' hopes and expectations to play professionally, few (2 %) actually compete at the professional level in their sport (Lee, 1983). From

these studies, it can be concluded that many athletes may be setting themselves up for disappointment and a career impasse by having unrealistic expectations and not attaining high academic standards. Even for those athletes who do play professionally, the average career in professional athletics is less than 5 years (Remer at al., 1978), thus leaving them to quickly plan for a new career. In conclusion, it is possible that athletes may have negative and unrealistic thoughts about the career decision-making process and may experience career indecision during their college years when their plans to play professionally do not come to fruition.

Career Development of Athletes and Non-Athletes

A few studies have been conducted to explore career-related issues of collegiate student athletes including career planning (Blann, 1985; Sowa & Gressard, 1983), career maturity (Kennedy & Dimick, 1987), and congruence between college major and vocational interests (Hansen & Sackett, 1993). Blann (1985) looked at participation in college athletics and the ability to formulate mature educational and career plans in men and women. It was found that male freshmen and sophomore athletes of high- and low-competitive level athletics did not score as high on indicators of the ability to formulate mature educational and career plans as male freshmen and sophomore non-athletes. No significant differences in career planning were evident for male junior and senior athletes and non-athletes, or for women at any level. Sowa and Gressard (1983) also found athletes tend to score lower on measures of educational plans, career plans, and mature relationships with peers than non-athletes. Taken together, athletes may have more difficulty with some career development planning compared to non-athletes.

Kennedy and Dimick (1987) looked at career maturity, the degree to which an individual has attitudes and competencies necessary for realistic career decision making, of revenue producing and non-revenue producing athletes. Athletes in revenue-producing sports (i. e., basketball, football) were found to have lower levels of career maturity than athletes in non-revenue producing sports (i.e., tennis, golf). Lower levels of career maturity may be due to a strong athletic identity and lack of time engaged in activities which promote career exploration and decision-making (Petitpas & Champagne, 1988).

Hansen and Sackett (1993) studied the congruence between current college major and future vocation selected for female college athletes and non-athletes. The athletes were found to have lower levels of congruence between college major and measured vocational interests than students in an introductory psychology course; however, athletes had higher levels than students in a career decision-making course.

The results of these studies indicate that there are differences in the career development (e.g., career planning, career maturity) of athletes and non-athletes. However, the student athlete population may be too large to categorize all athletes under one global heading (Blann, 1985; Kennedy & Dimick, 1987). More inquiry is required to fully understand the possible career development differences that exist not only between athletic athletes and non-athletes, but also within athletic groups.

Realizing the student athlete may need some additional assistance, a number of programs have been developed to address their academic and social needs (Denson, 1994), personal and self-esteem issues (Coleman and Barker, 1993), self-exploration and job search skills (Wilkes, Davis, and Dever, 1989; Wooten & Hinkle, 1992), and career

planning, and academic record keeping concerns (McFarland, 1976; Shiflett & Galante, 1985; Wittmer, Bostic, Phillips, & Waters, 1981). While several of these studies report favorable evaluations, few provide evidence of their effectiveness.

Once athletes retire from active competition, some may experience major career dilemmas. Athletes may have been given special privileges while on campus, leading to feelings of dependency, entitlement and permissiveness (Wooten, 1993). Also, athletic departments may have a stronger interest in keeping the athlete eligible to play rather than fostering an environment that promotes the development of career plans. Experiences like these may lead athletes to feel confused once they are no longer involved in a highly structured environment.

Many elite level athletes who are preoccupied with training and competition do not consider occupations outside of athletics. Some find they don't have practical occupational experience or needed job skills to enter other professions (Werthner & Orlick, 1986). In addition to career problems, some may experience additional difficulties such as financial problems, divorce, and substance abuse (Shahnasarian, 1992).

A number of programs have been developed to assist athletes in making the transition from competitive sport to post-athletic careers (Baillie 1993; Chartrand & Lent,1987; Shahnasarian, 1992; Wolff & Lester, 1989). The effectiveness of these intervention programs are not fully known as they have not been empirically tested.

Only a limited amount of research has been conducted to describe how student athletes may be different compared to the general student population on their career development process. Further, an even more limited amount of research has explored

potential differences within athletic populations (i.e., gender, revenue vs. non-revenue producing sports, team vs. individual sports, race). More research is needed to understand the specific differences between athletes and non-athletes with regard to their career development.

Social Cognitive Career Development Theory

The role of cognitive aspects in career development is considered in several theories. Krumboltz's learning theory of career choice and counseling (Mitchell & Krumboltz, 1996) emphasizes the interaction of four types of factors which influence career decision-making: genetic endowment and special abilities, environmental conditions and events, learning experiences, and task approach skills. The interaction of these four factors leads to generalizations or beliefs which form self-observation generalizations and world-view generalizations. These generalizations become the bases for career decisions.

Contemporary career development theories such as the social cognitive career theory of Lent, Brown, and Hackett (1996), are based in the social cognitive theory of Albert Bandura (1986). The theory of Lent et al. (1996) focuses on the development of career interests, the promotion of career-related choices, and the individual's determination to achieve educational and vocational goals. The role of vocational interests, self-efficacy, outcome expectations, and contextual variables (e.g., gender, race) are considered in the development of career decisions.

The cognitive information processing theory of Peterson, Sampson, Reardon, and Lenz (1996) is one of several career development theories which places an emphasis on cognitive components. This theoretical approach is concerned with how individuals

develop into independent and responsible problem solvers and decision makers (Peterson, Sampson, & Reardon, 1991). Three factors or domains are utilized to assess how individuals make appropriate career choices. The first is a knowledge domain which consists of an individual's self-knowledge and occupational knowledge. The second domain of the theory is concerned with decision-making skills, including generic information processing skills which can be used to conceptualize how individuals solve problems and make decisions. The final domain, executive processing, looks at the role of metacognitions, such as self-talk, in the process of career decision making.

Negative Thinking Patterns Associated with Career-Decision Making

Cognitive information processing theory suggests it is important to assess an individual's negative, or dysfunctional, career thinking patterns. Dysfunctional career thinking is defined as "cognitions which impair an individual's ability to solve career problems and to make career decisions" (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996, p. 2) or cognitions which make it difficult for an individual to progress towards completing career goals (Corbishley & Yost, 1989). This can include dimensions like decision-making confusion, commitment anxiety, and external conflicts.

Early researchers have considered misconceptions (Thompson, 1976) and self-defeating assumptions and behaviors (Dryden, 1979; Hornak & Gillingham, 1980) to be characteristics of dysfunctional career thinking. Other studies have explored irrational expectations in vocational counseling, myths, and irrational beliefs, ideas, and private rules related to the career decision-making process (Dorn & Welch, 1985; Krumboltz, 1983; Lewis & Gilhousen, 1981; Nevo, 1987; Stead, Watson, & Foxcroft, 1993).

Corbishley and Yost (1989) categorized dysfunctional career cognitions as statements which usually start with "I can't," "I won't," or "I shouldn't."

The Career Thoughts Inventory (Sampson et al., 1996) is a relatively new instrument which specifically measures negative career thinking (including commitment anxiety, decision-making confusion, and external conflict), but has not received much attention in the literature. To date, no studies have examined differences in the negative career thoughts of college students by gender, academic class, and athletic status. More research is needed to examine the negative career thoughts of college students, particularly with college athletes.

Career Indecision

Career indecision has been a popular and well-researched construct in the in the career development literature for over a decade. It is defined as the degree to which an individual has made a decision about a college major and a career. Research findings have indicated a strong relationship between career decision and a number of factors including anxiety (Fuqua, Newman, & Seaworth, 1988; Fuqua, Seaworth, & Newman, 1987; Hartman & Fuqua, 1983), locus of control (Cellini & Kantorowski, 1984; Freidberg & Freidberg, 1988), and personality characteristics (Cooper, Fuqua, & Hartman, 1984; Newman, Gray, & Fuqua, 1999; Sabourin & Coallier, 1991; Tango & Dziuban, 1984).

Several studies have explored career decidedness in male and female students. Numerous other studies found no differences between males and females on levels of career decidedness (Cellini, 1978; Hartman, Jenkins, Fuqua, & Sutherland, 1978; Larson, Butler, Medora, & Allgood, 1994; Niece & Bradley, 1979; Limburg, 1978; Osipow,

Carney, & Barak, 1976; Sutera, 1977). However, other findings have indicated significant gender differences in career indecision. Some of these studies found males to report less indecision than females (Gordon & Osipow, 1976a; Westbrook, Cutts, Madison, & Arcia, 1980), while (Taylor, 1979a) found females to report less indecision than males. More research is needed to clarify career indecision differences between college males and females.

Academic class and career indecision has also been studied (Limburg, 1978; Osipow, 1987). Results indicated that career indecision decreased as students progressed from underclass (freshman and sophomore) status to upperclass (junior and senior) status. Of interest, no study to date has explored the career decidedness of athletes versus non-athletes. More research is needed to explore potential differences between the levels of career indecision of college athletes and non-athletes

In summary, a number of general intervention programs are available to help student athletes with career-related issues. However, there still remains a large gap in the literature which accurately describes the differences in career development between student athletes and non-athletes, and the unique needs of student athletes in their career decision-making and career planning process

Purpose of the Study

The purpose of this study was to examine the relationship of athletic status, gender, and academic class on negative career thinking patterns and career indecision in college students. Within the college athlete group, negative career thinking patterns and career decidedness were examined by the type of sport (major vs. minor) and gender of the athlete.

Significance of the Study

While several programs have been developed to assist athletes with career development issues at the college level, post-athletics, and transition periods (Baillie & Danish, 1992; Denson, 1994; McFarland, 1976; Wooten & Hinkle, 1992), the differences between collegiate athletes and non-athletes in their career decision-making and career planning skills is not fully known.

It was hoped that this study would offer significant information to the current literature by identifying career development differences experienced by athletes and non-athletes, in particular how these two groups differed in their level of career decidedness and career thinking patterns. In addition, this study explored differences in career indecision and negative career thinking patterns across gender and academic class. This was significant because little is known about the effects of gender, academic class, and athletic status on career indecision and negative career thinking. This study also looked at the effect of type of sport (major vs. minor) on levels of career decidedness and negative career thinking of college athletes. This too is significant as little is known about the effects of type of sport and gender on career indecision and negative career thinking. The information gleaned in this study can be used better understand the career development differences between athletes and non-athletes, men and women, and students across academic classes (e.g., underclass, upperclass). It can also be used to understand career development differences between athletic groups. Further, this information can be used to help target specific career deficits that can be used to help design effective and efficient career programs for college students.

Research Questions

The following research questions were addressed in this study:

1. What were the relationships between athletic status, gender, and academic class on career decidedness and negative career thoughts both individually and collectively?
2. What were the relationships between type of sport (major vs. minor) and gender on levels of career decidedness and negative career thinking patterns both individually and collectively?

Research Hypotheses

The following hypotheses were tested in this study:

1A. First, it was hypothesized that male, underclass athletes would report the highest levels of career indecision (as measured by the Career Decision Scale; Osipow, 1987) and the most negative career thinking (as measured by the Career Thoughts Inventory; Sampson et al., 1996) when compared to other groups (i.e., female, upperclass athletes).

1B. Second, it was hypothesized that athletes would report higher levels of career indecision (as measured by the Career Decision Scale; Osipow, 1987) and higher levels of negative career thoughts (as measured by the Career Thoughts Inventory; Sampson et al., 1996) compared to non-athletes.

1C. Third, it was hypothesized that college underclass students (freshman, sophomores) would report higher levels of career indecision (as measured by the Career Decision Scale; Osipow, 1987) and negative

career thoughts (as measured by the Career Thoughts Inventory; Sampson et al., 1996) when compared to upperclass students (juniors and seniors).

1D. Fourth, it was hypothesized that college men would report higher levels of career indecision (as measured by the Career Decision Scale; Osipow, 1987) and negative career thoughts (as measured by the Career Thoughts Inventory; Sampson et al., 1996) compared to college women.

2A. First, it was hypothesized that male athletes in major sports (e.g., football, basketball) would have higher levels of career indecision (as measured by the Career Decision Scale; Osipow, 1987) and negative career thoughts (as measured by the Career Thoughts Inventory; Sampson et al., 1996) compared to male athletes in minor sports (e.g., baseball, wrestling) and female athletes in major (e.g., basketball, softball) and minor sports (e.g., golf, tennis).

2B. Second, it was hypothesized that male athletes would report higher levels of career indecision (as measured by the Career Decision Scale; Osipow, 1987) and negative career thinking (as measured by the Career Thoughts Inventory; Sampson et al., 1996) than female athletes.

2C. Third, it was hypothesized that male and female athletes in major sports would have higher levels of career indecision and negative career thinking compared to male and female athletes in minor sports.

Assumptions

Assumptions for this study include the following:

1. Major and minor sports for males and females are significantly different enough to classify them separately into major and minor athletic groups.

2. Males in major sports and females in major sports are similar enough to each other to categorize them with the same term of major. Males in minor sports and females in minor sports are similar enough to each other to categorize them with the same term of minor.

3. The assessment instruments used in the study are reliable and valid measures of the identified variables.

4. Participants answer questionnaire items honestly.

5. Noted differences in dysfunctional career thinking and career indecision are due to the identified independent variables of athletic status, academic class, and gender.

Definition of Terms

Academic class--the academic class designation for college students (e.g.,underclass, upperclass) based on the number of semester credits passed. Underclass students have completed up to 59 semester credit hours; upperclass students have completed more than 60 semester credit hours.

Career indecision--the degree to which an individual has made a decision about a college major and a career. Career indecision is a subscale of the Career Decision Scale (Osipow, 1987). Higher scores indicate greater levels of career indecision.

Certainty--the level of certainty one has about their choice of college major or career. Certainty is a subscale of the Career Decision Scale (Osipow, 1987). Higher scores indicate greater certainty in career choice and major.

Commitment anxiety--"an inability to make a commitment to a specific career choice, accompanied by generalized anxiety about the outcome of the decision making process, with the anxiety perpetuating the indecision" (Sampson et al., 1996, p. 2). Commitment anxiety is a subscale of the Career Thoughts Inventory (Sampson et al., 1996), and is considered a negative career thought. A higher score indicates an inability to prioritize career options, select a single career choice, and commit to career choices

Decision-making confusion--"an inability to initiate or sustain the decision making process as a result of disabling emotions and/or a lack of understanding about the decision making process" (Sampson et al., 1996, p. 2). Decision-making confusion is a subscale of the Career Thoughts Inventory (Sampson et al., 1996), and is considered a negative career thought. A high score suggests inadequate understanding of the career decision making process, negative feelings towards making decisions, and an inability to begin the career decision making process.

Dysfunctional career thinking--"cognitions which impair an individual's ability to solve career problems and to make career decisions" (Sampson et al., 1996, p. 2). This term is used synonymously with negative career thinking. This is indicated by the total score on the Career Thoughts Inventory (Sampson et al., 1996). Higher scores indicate greater dysfunctional career thinking. Individuals with higher scores tend to be less certain about career and academic choices, lack knowledge pertaining to themselves and occupations, and have less clear perceptions of their own goals and interests.

External conflict--"an inability to balance the importance of one's own self-perceptions with the importance of input from significant others, resulting in a reluctance to assume responsibility for decision making" (Sampson et al., 1996, p. 2). External

conflict is a subscale of the Career Thoughts Inventory (Sampson et al., 1996), and is considered a negative career thought. A higher score indicates the inability to separate self-perceptions from those of others, discount influence from others, confusion surrounding the input from significant others.

Female major sport student-athlete--a female who is identified in University athletic records as being a member of the University's intercollegiate basketball or softball athletic team either as a scholarship or non-scholarship participant.

Female minor sport student-athlete--a female who is identified in University athletic records as being a member of the University's women's tennis, golf, soccer, or track intercollegiate athletic team, as a scholarship or non-scholarship participant.

Female non-athlete--a female who is not identified in University athletic records as being a member of a women's intercollegiate athletic team either as a scholarship or non-scholarship participant.

Male major sport student-athlete--a male who is identified in University athletic records as being a member of the University's men's basketball or football intercollegiate athletic team either as a scholarship or non-scholarship participant.

Male minor sport student-athlete--a male who is identified in University athletic records as being a member of the University's men's baseball, track, wrestling, golf or tennis intercollegiate athletic team, as a scholarship or non-scholarship participant.

Male non-athlete--a male who is not identified in University athletic records as being a member of a men's intercollegiate athletic team either as a scholarship or non-scholarship participant.

CHAPTER TWO

REVIEW OF THE LITERATURE

The review of the literature outlines the major areas which are addressed by this study. The career development of athletes is presented first, including a description of several programs designed to assist athletes with career development issues. Next, a review of career theories is presented. Finally, research concerning negative career thinking and career indecision is introduced.

Professional Sport as a Future Career Option

Less than 2% of high school athletes will ever play professionally (Lee, 1983; National Association of Intercollegiate Athletics, 1981; National Collegiate Athletic Association, 1981; National Federation of State High School Associations, 1981). Only 3.3% to 8% of collegiate athletes can plan on a career in professional athletics and have a short-lived career expectancy of less than 5 years (Edwards, 1986; Remer et al., 1978). Lee (1983) attempted to predict athletic expectations of black and white male high school athletes. Thirty-six percent of black starters responding to a survey expected to become professional athletes while only 14% of the white starters expected to play professionally. Eleven percent of black nonstarters and 8% of white nonstarters expected to become professional athletes. Coaches' encouragement and race were significant predictors of athletic expectations for the total group of athletes. Athletes may be setting themselves up for disappointment and career difficulties by not having realistic expectations about their chances of becoming professional athletes.

Graduation Rates of College Athletes and Non-Athletes

Although there has been a large amount of research studying the graduation rates of college athletes, the results of paint a mixed picture (Snyder, 1985). While conclusions are difficult to draw, it can be said that student athletes are similar to non-

athletes in that some easily progress through their academic challenges while others struggle (Brede & Camp, 1987).

A comparison of the graduation rates of student athletes and non-athletes at Michigan State University over a 25-year period was conducted by Shapiro (1984). The overall graduation rate for athletes was 71%, with basketball and football players have the lowest graduation rates in the athlete group. However, a closer examination of the data reveals a significant decrease from the 1950s to the 1970s in the graduation rates of athletes. During the 1950s, student athletes' graduation rate was significantly higher than non-athletes, but by the 1970s their rates were found to be nearly equal. More specifically, black athletes were found to have much lower graduation rates than white athletes.

Henschen and Fry (1984) examined the graduation rates of male and female student athletes over a 10-year span at a major university. While the graduation rate for the entire student body was 45 percent, athletes had a graduation rate of almost 49 percent. For females, basketball players had the highest rate and those in gymnastics had the lowest; for men, football players had the highest graduation rate while basketball players had the lowest.

Shiflett & Galante (1985) examined graduation rates of National Collegiate Athletic Association (NCAA) universities in the Southeast Conference (SEC). Of 5 SEC universities, graduation rates for football players ranged from 50-90%. Of 2 SEC universities, graduation rates for football players ranged from 50-90%. Of 5 SEC universities, graduation rates for basketball players ranged from 20-99%.

Spivey & Jones (1975) found extremely low graduation rates for black athletes. Sixty-five percent of black athletes at the University of Illinois failed to graduate and 96% had a GPA below 2.0 by their sophomore year. Black athletes often find they're unprepared for their academic careers (Kirk & Kirk, 1993).

Purdy et al., (1985) found university athletes to have a graduation rate of 34% compared to 47% for the general student population. Males in revenue or major sports (football and basketball) had the lowest graduation rates.

Career Development of Athletes

Pinkerton et al. (1989) indicated that typically universities have more interest in keeping athletes eligible than in preparing them for academic success and future career plans. Henschen and Fry (1984) boldly state "as the emphasis on a particular sport increases and more money is pumped into that particular program, there is a corresponding decrease in graduation productivity" and "as the sport becomes 'big time,' the participants' likelihood of graduating appears to be mitigated. This disconcerting situation seems to hold true for men and women" (p. 55). In addition, maintaining eligibility requirements was found to be a year-round struggle for approximately one-quarter of student athletes (Brede & Camp, 1987). While most non-athlete juniors and seniors are becoming set on majors and post-college plans, this is not always true for student athletes. Shiflett and Galante (1985) surveyed male basketball, football, and baseball players in the Southeast Conference. No schools reported having vocational files or profiles for student-athletes. Most schools "implemented a weak program to assist student-athletes in their academic and vocational preparation" (p. 28).

Intercollegiate athletes may be missing out on opportunities to take advantage of career services. Vocational issues tend to be frequently cited presenting problems at university and college counseling centers (Sharp & Mara, 1971). However, Bergandi and Wittig (1984) reported athletes use counseling center services less often than non-athletes.

Difficulties related to career decisions and issues such as choosing a major, developing long-range realistic goals and learning job and resume skills may be even more problematic for athletes (Remer et al., 1978; Shahnasarian, 1992). The biggest

difficulty for student athletes can be making career decisions as "athletes are typically blinded to all possibilities except that of future athletic excellence" (Lanning & Toye, 1993, p. 64).

Hansen and Sackett (1993) looked at the congruence between college major and vocational interests for female student-athletes and two college student contrast samples (women in a career decision-making course and an introductory psychology course). Those in the introductory psychology course had the highest level of agreement between college major and vocational interests, followed by the student-athletes and career course students. Student athletes overidentification with athletics appears to detract them from usual career direction such as choosing a major.

Competitive level of participation in intercollegiate athletics and ability to formulate educational and career plans was studied by Blann (1985). Male, freshmen and sophomore athletes in both high- and low-competitive level were found not to formulate mature educational and career plans as well as freshman and sophomore male non-athletes. However, junior and senior males at both competitive levels showed similar abilities to form mature educational and career plans as junior and male non-athletes. Findings for women did not show differences between athletes and non-athletes. Sowa and Gressard (1983) looked at the relationship of activity in collegiate, varsity athletics and achievement of developmental tasks between athletes and non-athletes. Athletes scored significantly lower on educational plans, career plans, and mature relationships with peers than non-athletes.

Career maturity was studied with revenue-producing college athletes (i.e., male basketball and football players) by Kennedy and Dimick (1987). Results suggest that football and basketball scholarship athletes possess lower levels of career maturity when compared to other college athletes at all university grade levels. One-third of the student athletes participating in the study met the criterion of impairment for 12th-grade students.

Student athletes may have lower levels of career maturity due to their strong athletic identity which interferes with other career explorative activities (Petitpas and Champagne, 1988).

Elite level athletes often are too busy training and competing to have part-time jobs or obtain other types of vocational experiences, thus leaving them without practical job experience post-athletic career (Werthner & Orlick, 1986).

Retirement from Sport

Retirement from sport, at the collegiate or professional level, poses new career problems for athletes. A wide array of factors can cause an athlete to retire including lack of motivation, injuries, reaching of predetermined goals, negative environments (Werthner and Orlick, 1986); frustration, travel, and age (Allison and Meyer, 1988).

Shahnasarian (1992) looked at career development issues of former professional football players. Common problems reported by retired football players are financial difficulties, divorce, substance abuse, and career problems. Some players never considered a career outside of professional football until they already retired. Counselor-directed assessment and career exploration are strongly encouraged. As a result, S.C.O.R.E (Sports, Careers, Options, Research, and Education), which follows a four-quarter plan to assist football players through career development, was created.

Baillie (1993) described the Life Development Intervention (LDI) approach to help athletes in coping with the changes associated with retirement from athletics. Many athletes feel behind in their career development due to the lack of time spent considering career issues, and bypassing typical career stages.

Petitpas, Danish, McKelvain, and Murphy (1992) outlines the Career Assistance Program for Athletes (CAPA), a program to assist Olympic athletes as they make the transition from competitive athletics. The program is based on a life span developmental model focusing on enhancement of personal skills. Participants were 142 athletes

attending one of eight 1-day workshops. Workshop focused on three areas: (a) Managing the effects of transitions, (b) promoting self-awareness of personal coping skills and career development, and (c) imparting of information relevant to the working world. The issues most frequently faced by athletes include no skills other than those related to sport, feelings of isolation and being misunderstood, feeling a strong sense of entitlement, frustration and anger with the athletic system, feeling distracted from sport by career development, and the need to quickly establish a new career.

Chartrand and Lent (1987) explored the issue of athletic retirement for student-athletes. Problems such as restricted career decision, biased information interpretation and insufficient considering of career pathways can make retirement from sport difficult. Their psychoeducational model for enhancing athletic and personal development emphasizes the individual's desire to acquire skills, the capacity to learn new skills, the counselor's role as instructor and model, and the applicability of nearly learned skills to new areas.

Parker (1994) used qualitative methodology to look at the transition from competition to non-competition of 7 former participants of NCAA Division 1-A football. Players had completed their eligibility within the last 3 years and hadn't been active in collegiate competition for the last 8 months. Four of the 7 had graduated, with the remaining 3 still working towards graduation. Only one was working full-time and one was a graduate student. The minimum number of years spent in college was 4.5 while 50% had spent over 6 years in college.

Werthner and Orlick (1986) described retirement experiences of elite, Canadian, amateur athletes. Over 75% of the athletes interviewed reported "extremely difficult/traumatic" or "moderately difficult/some problems" when questioned about their transition out of career in sport.

Wooten (1993) described factors leading to and intervention strategies for indecisive disposition in college student-athletes. Irrational beliefs are often fostered when an athletic department instills dependency, entitlement and permissiveness with student-athletes. These irrational beliefs need to be challenged in order to help student-athletes make better career choices.

Allison and Meyer (1988) used qualitative techniques to examine the retirement experiences of elite female tennis professionals and to reflect on their competitive years. Sixty percent of those interviewed never had an intention of using tennis as a career. "The training potential for alternate careers was extremely difficult given the travel and other demands of the world-class tour" (p. 216). Overall, the retirement process didn't appear to be as traumatic as is generally believed. Many of the players saw the end of their competitive tennis careers as an opportunity to expand into options not afforded to them while they were training and competing.

Greendorfer and Blinde (1985) surveyed former intercollegiate athletes to look at educational and occupational preparation, post-career sport participation, and adjustment to sport retirement. Three quarters of the former athletes were still participating in their sport at some level. Ninety-two percent of the females of that 75% and 88% of the males were still involved with their sport at an informal level. The data suggests that retirement from sport at the intercollegiate level was not the definitive end of involvement with their sport. They reported a large drop in "importance of sport" from the freshman year through the senior year, perhaps allowing for other activities to become more salient (i.e., career issues, education). The data suggests retirement from sport was not as traumatic as it is generally assumed to be.

Wolff and Lester (1989) proposed a 3-step model to assist athletes in coping with the loss of personal identity affiliated with termination of sport. Athletes are encouraged to deal with feelings of guilt, anxiety, and doubts pertaining to the future which will

result in a decrease of anxiety and depression. From there, counselors should focus on the role of vocational development to aid athletes in beginning new career paths.

Baillie and Danish (1992) described different aspects of career transition in sports. Career transition might be especially difficult for athletes as the career development does not progress in the same manner as non-student athletes.

Career Development Programs for Athletes

To assist with the multitude of deficiencies found in the career development of athletes, a number of programs and models have been proposed and implemented to deal with career issues while in college and post-retirement from sport. Denson (1994) described a freshman seminar course for student athletes focusing on 3 topic clusters: (a) Academic navigation (e.g., time and task management, study skills, test taking), (b) career development (e.g., career search project, self-assessments), and (c) personal and social issues (e.g., relationships, date and acquaintance rape, cultural diversity).

Coleman and Barker (1993) outlined STRATEGIES: A Model of Career Development for Student-Athletes. This program focuses on self-assessment, self-concept development, and self-esteem.

Wooten and Hinkle (1992) described an undergraduate academic course focusing on the exceptional needs of student athletes including career exploration and encouragement of personal growth via self-expression and exploration. Five goals were identified for the program: (a) Facilitating student-athletes in becoming active in the process of career and life development, (b) assessing personality factors (c) fathering and utilizing information germane to the world of work, (d) development decision making skills, and (e) developing basic academic, career and life planning skills. The program was designed to address three topic areas: (a) self-exploration assessment and counseling, (b) exploration activities, and (c) job search skills activities and development.

Wilkes et al., (1989) presented a 2-session career planning seminar for undergraduate student athletes, and a job search seminar for graduating seniors covering such topics as career fantasies, interview techniques, and resume/cover letter skills. Shiflett & Galante (1985) designed a career model to address unrealistic attitudes and indecision from the sophomore-senior years is provided.

Wittmer et al., (1981) described the development of a counseling program at the University of Florida designed to assist counselor's in dealing with the personal, vocational, and academic concerns of student athletes. The program is intended for freshman-level athletes focusing on self-concept, vocational and academic awareness, race differences, leadership, and interpersonal communication skills.

McFarland (1976) described a career planning seminar at Wichita State University for its freshman student athletes. Focusing on careers other than athletics develops academic motivation, and promotes "feelings of territoriality" for the campus outside of athletics (p. 16).

Much of the literature described models and programs designed to aid athletes with career issues, however, few provide outcome data. One study which did was Nelson (1982) who looked at the effects of career counseling on freshmen athlete's academic achievement and choice of academic major compared to a control group. Those who attended the 5 counseling session were found to have significantly higher first semester GPAs, more changes in choice of college majors, and higher expressed satisfaction with their majors.

Wooten (1994) provided a framework addressing the following issues for athletes: transitions, decision-making, and career counseling strategies. Counseling interventions should focus on skills related to coping with the transition from sport. The "Integrative Transition Model," which outlines emotional and cognitive tasks, is described.

Career Development Theories

Over the years, a number of career theories have emerged emphasizing a number of differing variables. The role of social learning has been instrumental to some of the more established career theories. An early proponent of social learning theory was Albert Bandura (1986). His social learning theory stressed the role of learning through others, the consequences of behaviors, and the role of cognition in learning (Bandura, 1977). In particular, Bandura emphasized self-efficacy beliefs (cognition) which refers to peoples' beliefs in their ability to execute behavior to produce specific outcomes (Bandura, 1977). Another core concept to Bandura's theory is reciprocal determinism which contends that personal attributes, external environmental factors, and overt behavior all act on each other and are intertwined.

Krumboltz integrated some of Bandura's concepts into his learning theory of career choice and counseling (Mitchell & Krumboltz, 1996). Krumboltz's learning theory looks to not only explain the origins of career choice, but also how to solve career related problems. Genetic endowment and special abilities, environmental conditions and events, learning experiences, and task approach skills are factors which influence an individual's career path (Mitchell & Krumboltz, 1996).

Cognitive Theoretical Approaches to Career Development

Using the influence of Bandura's work (Bandura, 1986), social cognitive theory has been applied to the area of career development (Lent & Brown, 1996). Social cognitive career theory (SCCT) "emphasizes the dynamic processes that we believe help to shape and transform occupational and academic interests, choices, and performances" (Lent & Brown, 1996, p. 311). SCCT emphasizes the development of career interests, the promotion of career-relevant choices, and tenacity of individuals to continue towards educational and vocational goals. Similar to Bandura's (1986) theory, SCCT also

espouses behavior is the result of reciprocal determinism. Individuals are able to self-regulate behavior through self-efficacy beliefs, outcome expectations, and personal goals.

Vocational interests begin to develop through childhood and adolescent experiences. It is through these experiences that individuals begin to feel competent in performing particular actions or behaviors. It is through this sense of competence, and valuing the expected outcome, that people begin solidify an enduring interest in performing that behavior (Bandura, 1986). This pattern of learning is central to SCCT. An individual can then use their emerging interests, or self-efficacy along with expected outcomes to produce goals (Lent & Brown, 1996). Occupational choice is not only influenced by interests, but also self-efficacy, outcome expectations and contextual variables such as gender, race/ethnicity, genetics (Lent et al., 1996). Finally, SCCT considers factors such as self-efficacy, outcome expectations, and performance goals to look at how individuals attain achievement in the work place and how they continue to persevere in work-related activities despite barriers and obstacles.

In terms of therapeutic approaches from the SCCT framework, Brown and Lent (1996) advocate helping clients expand their occupational options by identifying those which were at one time foreclosed. This can be done through measures assessing vocational interests, needs, and aptitudes. Secondly, Brown and Lent (1996) suggest analyzing perceived barriers which may preclude plausible career options. Finally, helping clients to modify self-efficacy beliefs is recommended (Brown & Lent, 1996). This can be accomplished by organizing new experiences which can change self-efficacy beliefs to those which will increase success.

Cognitive Information Processing Career Theory

Peterson et al., (1996) illustrated a career problem solving and decision making theory based on cognitive information processing. The cognitive information processing (CIP) perspective has been a comprehensive perspective in looking at how individuals

can become independent and responsible in solving career problems and making career decisions (Peterson et al., 1991). Ten assumptions have been made about career development (Peterson, et al., 1991, p. 8-9):

1. Career choice results from an interaction of cognitive and affective processes,
2. Making career choices is a problem-solving activity,
3. The capabilities of career problem solvers depend on the availability of cognitive operations as well as knowledge,
4. Career problem solving is a high-memory-load task,
5. Influence of motivation,
6. Career development involves continual growth and change in knowledge structures,
7. Career identify depends on self-knowledge,
8. Career maturity depends on one's ability to solve career problems,
9. The ultimate goal of career counseling is achieved by facilitating the growth of information processing skills, and
10. The ultimate aim of career counseling is to enhance the client's capabilities as a career problem solver and a decision maker.

Their theory has roots back to the cognitive theory perspective of Frank Parsons (1909). Initially, individuals must acquire knowledge. This domain, according to CIP, is called the knowledge domain. The two subdomains include self-knowledge and occupational knowledge. First individuals must learn understand themselves which includes the measurement of personality traits and factors such as interests, abilities, and values. Secondly, individuals must have a good understanding of occupational

knowledge. Information is presented to acquaint individuals with occupational classification schemes and present a structured view of the world of work.

The second domain is the decision skills domain (Peterson, et al., 1996). Within the decision skills domain are "generic information processing skills" which include communication, analysis, synthesis, valuing, and execution (CASVE; Peterson, et al., 1991). These five skills can be used to conceptualize problem solving and decision making. Individuals first use external of internal cues to acknowledge that a problem exists. The "encoding of internal and external signals and sending inquiries is Communication (Peterson et al., 1996). Individuals ask pertinent questions such as "What are my feelings concerning the problem?" During the Analysis stage, individuals take time to reflect on the problem itself to understand all of the dimensions involved and consider causes. The purpose of the Synthesis stage is to determine possible courses of action. This can be accomplished through crystallization, the process of narrowing potential options to a set of realistic choices, or elaboration, the generation of a wide variety of potential solutions. During the Valuing phase, individuals consider the practical options which were generated during the Analysis phase in terms of their own value system. Those options which do not coincide with the individuals value system can be eliminated. Finally, during the Executive phase individuals devise a strategy to implement what they determine to be their best plan of action.

The final domain of the CIP model is the executive processing domain (Peterson et al., 1996). This domain is concerned with the role of metacognitions in career decision making. The primary metacognitions in this domain are self-talk, self-awareness, and monitoring and control (Peterson et al., 1996). The messages individuals tell themselves about their ability to solve problems and make decisions actually affects their ability to make those decisions (Hackett, 1985). Therefore, an understanding of self-talk is important. Negative self-talk is frequently associated with chronic

indecisiveness (Hartman, Fuqua, & Blum, 1985; Taylor & Betz, 1983). Self-awareness is needed to allow individuals to be aware of internal influences which might be hindering the decision-making process such as negative self-talk. This awareness is also needed so individuals can monitor their own feelings as they progress through the decision-making process and solve career problems. Through self- awareness individuals can "buffer against extraneous influences that may interrupt or alter the process" (Peterson et al, 1996, p. 438). Monitoring and control is needed to assist individuals in understanding when enough information has been gathered to successfully move through a particular stage, or help them to know when a stage has been sufficiently completed. "Monitoring and control serve as a 'quality control' mechanism to ensure a complete, orderly, and timely progression through the CASVE cycle" (Peterson et al, 1996, p. 439).

Peterson et al. (1991) presented the three domains in a structural order from the knowledge domain, to the decision skills domain, to the executive processing domain. When structured together this is known as the pyramid of information processing domains (Peterson et al., 1991). The career decision making phase is designed to be an integration of the person's self-knowledge and occupational knowledge to lead towards career choices. The goal of career counseling, then, is to help individuals make prudent career decisions.

Sampson, Peterson, Lenz, and Reardon (1992) translated their cognitive information processing approach to practical applications. Their emphasis is on helping clients understand the process of making a career choice (i.e., knowing about myself, knowing about my options) and providing a guide to making good decisions.

Cognitive Factors and Career Development

The role of cognitive factors on career development has been examined. Baumgardner (1976) found differences in thinking orientation across year in school.

Freshmen appear to be analytical in their thinking, and become more intuitive as they progress through their sophomore year.

Welfel (1982) described King's (1981) reflective judgment model in terms of career development and counseling. The contention is made that reflective judgment, the process by which logical assumptions form the base for an individual's beliefs, is related to how college students view career choices and should be considered in career counseling. Schmidt and Davison (1983) also indicate reflective judgment can be an important factor in understanding students and their development which includes career issues. Female college students in non-traditional career courses were more capable of abstract thinking and more intelligent than females in traditional career courses (Shukla and Chauhan, 1987).

Career commitment has been another factor influencing career development, yet has received little attention in the literature (Colarelli & Bishop, 1990). Career commitment is "characterized by the development of personal career goals, the attachment to, identification with, and the involvement in those goals" (Colarelli & Bishop, 1990, p. 159). In an effort to understand this concept better, Colarelli and Bishop (1990) examined the functions, correlates, and management of career commitment. The overall sample consisted of 426 individuals (341 MBA full-time employed MBA students and 85 professional chemists). Participants' career commitment, locus of control, organizational commitment, mentor relationships, role conflict and role ambiguity, and inter-role conflict were measured in addition to standard demographic variables. Career commitment was found to be positively correlated to age, years of education, and having a mentor. Conversely, career commitment was found to be negatively correlated with role ambiguity, inter-role conflict, and locus of control. From this study it can be concluded that personal and situational factors are related to career commitment. Secondly, the researchers found these factors to be related to career

commitment more strongly for the professional group. There clearly is need for more research into the concept of career commitment including the effects of other correlates such as anxiety and with other populations.

In developing a measure of fear of commitment, Serling and Betz (1990) found both state and trait anxiety to be correlated, and self-esteem to be inversely correlated, to fear of commitment. Further, fear of commitment was also found to be significantly higher in undecided college students.

The effects of cognitive restructuring and decision-making was researched by Mitchell and Krumboltz (1987). Students in the cognitive restructuring intervention were found to have less anxiety about career decision making and performed significantly more vocational exploratory behavior than students in the decision-making intervention or the control group. Students who experienced a series of guided imagery sessions were found to generate a significant greater number of career alternatives than control group students who were in a discussion group.

Negative Career Thinking

Negative career thinking can have a profound effect on an individual's career decisions. Corbishley and Yost (1989) described how cognitions can serve as an impediment to individuals seeking to achieve career goals, including making career decisions. Negative cognitions usually derive from one of three categories: "I can't," "I won't," or "I shouldn't." The "I can't" types usually indicate a lack of ability or resources, or restraints by others. Thoughts in this category can include "I'll make a fool of myself (and I couldn't stand that)" and "I'm not sufficiently strong, bright, talented, wealthy, etc." "I won't" thoughts refer to a withdrawal from or refusal to participate in the career development process. Examples include "It probably won't work out so why bother" and "I don't try for things I stand a chance of failing at." Finally, "I shouldn't" statements indicate violating the self-rules or those of others such as "It's against my upbringing (my

religion, family tradition, etc.)" and "It will displease my family." Dysfunctional thoughts can revealed thought behavior, emotions, or through direct statements.

Several studies outlined how distorted thinking can influence career decision making. Nevo (1987) described irrational expectations found in vocational counseling:

1. There is only one vocation in the world that is right for me,
2. Until I find my perfect vocational choice I will not be satisfied,
3. Someone else can discover the vocational suitable for me,
4. Intelligence tests will tell me how much I am worth,
5. I must be an expert or very successful in the field of my work,
6. I can do anything if I try hard, or I can't do anything that doesn't fit my talents,
7. My vocation should satisfy the important people in my life,
8. Entering a vocation will solve all my problems,
9. I must sense intuitively that the vocation is right for me, and
10. Choosing a vocation is a one-time act.

Dorn and Welch (1985) defined a career myth as an irrational attitude concerning the career development process. Examples of career myths include believing there's only one correct career path for each person, or the faulty belief that interests and abilities are the same. In a study of career myths using the Survey of Career Attitudes (Woodrick, 1979), high school students were found to subscribe to four career myths: Quitters never win, sex roles, the perfect job, and my child the doctor.

Seven myths and irrational ideas which may impede the career decision-making process was described by Lewis and Gilhousen (1981). The "crystal ball myth" refers to the false belief than an individual must have an exact and clear life plan. The "when are you going to decide, you dummy!" myth describes when individuals believe career

decisions should solidify at a certain period in life (i.e., shortly after high school graduation). "Quitters never win" is an idea that individuals must continue to pursue their life goals and can't veer from them. "I want you to have it better than I did" is based on the idea that a good set of rules will lead to a good life, and that each generation must do better than the previous. The idea that the work identity is more important than any other is known as "my work is my life." "Anyone can be President" describes those who believe they can become anything they want to be with enough hard work and dedication." Finally, "my son or daughter the doctor" is the idea that some people are better than others simply because of their occupation, and thus the closing of some occupational options because they are not high enough on the occupational hierarchy.

Thompson (1976) described misconceptions individuals may have about vocational counseling. The first is the misconception of exactitude, which refers to individuals believing that career planning and decision making is an exact science which results in a specific plan. The second, misconceptions of singularity and finality, are beliefs in which individuals believe career plans must happen at certain points in life and are final. Next, individuals can misunderstand the purpose of vocational tests, believing they can "tell me what I should do with my life" or "what I should be." Another misconception concerns the use of terms such as interests, abilities, aptitudes, etc., which are commonly, but erroneously, used synonymously. Other misconceptions including believing time alone will help people make decisions, or the use of dichotomous thinking.

Both specific and general irrational beliefs and career indecision of college students was examined by Stead et al., (1993). Self-esteem myths such as feeling rejected by others and Worry myths such as worry about the problems of others were found to be significantly related to career indecision. Indirect support is provided by other studies which links cognitive factors to career indecision.

Krumboltz (1983) identified seven private rules which may limit the effectiveness of career decision-making:

1. Faulty generalizations,
2. Self comparison with a single standard,
3. Exaggerated estimates of the emotional impact of the outcome,
4. False causal relationships,
5. Ignorance of relevant facts,
6. Giving undue weight to low-probability events,
7. Self-deception.

Dryden (1979) outlined the deleterious effects of negative thinking during the career development process. A confrontive approach is advocated for dealing with clients who utilize negative thinking.

Several core beliefs which could influence the career development process were described by Borders and Archadel (1987), including "I am not a worthwhile person" or "I am not an intelligent person." Negative core self-beliefs can cause individuals to erroneously eliminate potential career options because they don't believe they have the personal power to achieve particular goals.

The Career Beliefs Inventory (CBS; Krumboltz, 1994) assesses beliefs and assumptions which may limit career options. While the CBI is a noteworthy measure, questions remain concerning its psychometric properties (Fuqua & Newman, 1994). The Career Thoughts Inventory (CTI; Sampson et al., 1996) is a newer measure of negative career thinking. No studies have reported the effect of gender or academic class on negative career thoughts. More research is needed to examine negative career thinking, particularly with college populations.

Career Decision Making and Indecision

A certain degree of confusion exists in describing the characteristics of people who have decision making problems. Although other terms exist such as uncommitted, identify diffuse or vocationally immature, Peterson et al., (1996) identifies three types of decided/undecided individuals. Decided individuals have made a public or private commitment to a particular occupational choice (Peterson et al., 1996). Within the decided category are three subtypes--decided-confirmation, decided-implementation, and decided-conflict avoidance. The decided-confirmation individual make specific career choices but confirm or clarify their choice by contrasting it with other options. The decided-implementation individual is a person who has made a specific career choice, but need assistance in implementing their decision. The decided-conflict avoidance individual has made a specific choice, but only as to avoid conflict with significant others. Individuals who have not yet made a commitment to an occupational choice are termed undecided individuals (Peterson et al, 1991). This is usually due to a lack of knowledge required for making a choice (Peterson et al, 1996). The undecided-deferred individual has not made a choice and does not have an immediate need to do so. The undecided-developmental individual needs to make an occupational choice, but can't due to a lack of knowledge (i.e., self-knowledge, occupational knowledge). Finally, individuals who have not make an occupational choice yet have a wide variety of potential options are know as undecided-multipotential.

In addition to not making an occupational choice commitment due to knowledge gaps, indecisive individuals also show maladaptive approaches to problem solving and decision making, and have dysfunctional levels of anxiety (Peterson et al., 1991). Their inability to make a commitment to a career decision could be a symptom of a much larger problem such as a clinical or personality disorder (Peterson et al., 1991), or low social development (Newman, Gray, & Fuqua, 1999). Using CIP theory, this group of

individuals have deficiencies within the executive processing domain. Characteristics may include attention difficulties, a lack of self-awareness, limited thought abilities, or excessive negative self-talk. The "planless avoiders" (Larson, Heppner, Ham and Dugan, 1988) possess maladaptive coping behaviors and attitudes in addition to insufficient career-related activities, while "informed indecisives" have sufficient knowledge to make a decision, yet still don't commit.

One component which has received considerable attention is decision making style. Decision making style includes how people approach, respond to, and behave during decision making experiences (Arroba, 1977). Osipow and Reed (1985) looked at decision making typologies to better understand career decision and indecision of college students. Johnson (1978) proposed different types of decision making styles: spontaneous versus systematic, and internal versus external. One hundred male and 103 female undergraduates completed career decision inventories. Spontaneous externals and spontaneous internals were found to be the most undecided, followed by systematic externals and systematic internals. The conclusion was made that both spontaneity and internality/externality are influential in the indecision/decision process.

Blustein and Phillips (1988) explored decision making styles in relation to career exploration activities. College students who approached decisions in a systematic manner with a thinking orientation were more likely to explore the environment and the self. These exploration activities are believed to be essential to the career decision process.

Apostal (1988) looked at Myers-Briggs type and decidedness on a college major. Students who were decided reported being more thinking oriented than those in other decidedness groups (i.e., somewhat decided, undecided).

Mau and Jepsen (1992) looked at formal decision-making strategies and choice of college major. The sample consisted of 113 college undergraduates who were randomly

assigned to one of two treatment conditions, or a control group. Those in the treatment groups were taught one of two formal decision-making strategies using a computer. Students with a "Rational" decision style who were taught Elimination by Aspects (EBA; Tversky, 1972) strategy showed less anxiety and more choice certainty. Students with an "exploring" decision making style who were taught EBA sought more information than those in the control group. Finally, students with a "rational" style who were taught the Subjective Expected Utility (SEU; Gati, 1986) strategy were found to have higher scores on cognitive complexity than those in the control group.

Career indecision is a rather broad construct which includes many correlates (Taylor, 1982). Several studies have looked at the role of anxiety in career indecision (Fuqua et al., 1987; Fuqua et al., 1988; Hartman & Fuqua, 1983) drawing the general conclusion that a significant relationship exists between anxiety and career indecision. Locus of control and career indecision is another which has received considerable attention in the literature (Cellini & Kantorowski, 1984; Freidberg & Freidberg, 1988). Locus of control is believed to be significantly related to career indecision.

A body of literature also exists looking at personality variables and career indecision. Cooper et al., (1984) identified college students who were high in indecisiveness also to be higher on submissiveness, lack of dominance, self-criticism, passivity, and cooperativeness than those who were low in indecisiveness. Sabourin and Coallier (1994) found a significant relationship between response styles (i.e., self-deception, impression management) and career indecision. College students who distort information about themselves and deny psychologically threatening thoughts are more likely to report higher levels of career certainty in addition to lower levels of career indecision. Chartrand, Camp, and McFadden (1992) found interest congruence to be a significant predictor of career indecision for university undergraduates.

Tango and Dziuban (1984) studied personality characteristics and career indecision with community college students. Their results described three types of undecided individuals. The first, the uncommitted proprietor, tends to have characteristics such as gregariousness and submissiveness, and are attracted to occupational fields that are proprietary or somewhat exhibitionsitic such as writer, executive, and musician. Nonstop driver, the second type, tends to be avoidant and negativistic, and seek occupations which emphasize their "driven" quality such as athletics, sales, or public speaking. Finally, the retreater is a nonaggressive and submissive individual who prefers to not be in contact with the work and enjoys repetitive work duties.

Hornak and Gillingham (1980) viewed career indecision as a self-defeating behavior. College students use career indecision because of a fear related to making incorrect decisions. Commonly used defense mechanisms to deal with indecision include blaming, labeling, and distorting feedback. Students may experience psychosomatic illness, a lack of self-confidence, or disapproval from others in addition to other effects by avoiding the career decision process.

Coping is yet another variable which can be related to career indecision. O'Hare and Tamburri (1986) found coping to be a moderator between anxiety and career decision making. O'Hare and Beutell (1987) found gender differences to exist in coping and career decision making.

French and French (1994) advocate a multidimensional approach to career decision making. Specifically, they suggest that knowledge forms like declarative, procedural, strategic, and self-knowledge be included in evaluation procedures and career decision making. These knowledge forms can be accessed several ways including introspection, retrospection, and through observation procedures.

The way in which an individuals assesses their own problem solving abilities, or problem solving appraisal, can have an effect on career decision making. Larson and Heppner (1985) studied the differences of positive and negative appraisal on career decision and indecision of college students. In comparison to those with negative self-appraisal, students who viewed themselves appraised themselves positively on problem solving skills were found to have more confidence in their decision making ability and occupational potential, related abilities to occupational fields more often, were more likely to view indecision internally, and acknowledged antecedents of career indecision less often.

Gender Differences and Career Development

Significant gender differences of college students have been found; some of these differences are especially important for understand the unique career development path for females and males.

Career development appears to be a different process for men and women, with some authors describing theories which as unique to women (Fitzgerald & Betz, 1983). Men traditionally have strived toward a career role, which not only fulfills their vocational role, but also that of their family role which traditionally has been to supply income to the family. The vocational position of women typically only fills their vocational role, and not their family role which generally is that of the primary caregiver (Corder & Stephan, 1984; Kriger, 1972). These significant gender role differences, in addition to other sources, could be used to explain career development differences. Another difference may be in the approach taken during career decision making. Males may view this process as a challenge and feel control over the situation where women may approach the process feeling they "must be superorganized, meet all the demands of the situation, and look to family and friends for support" (O'Hare & Beutell, 1987, p. 179).

Initial research by Gottfredson, Holland, and Gottfredson (1975) showed women were more likely to prefer artistic, social, conventional occupations where men were more likely to prefer enterprising, realistic, and investigation occupations. Tomlinson and Evans-Hughes (1991) also studied the effect of gender on occupational interests only to find more men preferring realistic occupations.

One particular area which has received considerable attention is the impact of gender on structural features of vocational schemas. Neimeyer, Metzler, and Bowman (1988) found gender to have a significant effect on differentiation ("the overall number of different vocational constructs available to a person") and integration ("the extent to which these dimensions are interrelated") (p. 139). Males reported higher levels of vocational differentiation; females reported higher levels of vocational integration. Neimeyer and Metzler (1987) also reported significant gender differences for construct differentiation, occupational differentiation, total differentiation, and intensity.

Luzzo (1995) looked at the effect of gender on career maturity and perceived barriers during the career development process of college students. Both quantitative and qualitative methods were used to collect data. Females were found to be significantly higher than males on three aspects of career maturity--career-mature attitudes, career decision-making skills, and vocational congruence. In addition, interviews indicated that women were more likely to consider role conflicts and barriers perceived as impeding career progression.

A major area of interest relevant to this study has been the effects of gender and career indecision. While a number of studies have been conducted looking at gender and career indecision, the results are inconsistent. One study was conducted by Hartman et al. (1978) looking at differences of scores of career indecision for males and females. Overall, no differences were found on career indecision, but women reported perceiving more external barriers and needing more support during the decision making process.

Larson et al. (1994) looked at the effect of gender on career decision problems of undergraduate college students. Women's life goal awareness scores were found to be higher than men's indicating women have more difficulty in their knowledge, understanding, and insight into what they want or need from their lives. In addition, women scored higher than men on authority orientation indicating a greater degree of dependence or desire for an authority figure to make a decision for them. Men scored significantly higher on secondary gain than did women indicating that men had more problems with secondary gain motivation. Overall, no significant differences were found between men and women on career decision making, corroborating the findings by Hartman et al., (1978).

Sutera (1977) looked at the effect of gender on career indecision in 66 freshmen who were enrolled in a career planning center. No differences were found between males and females on levels of indecision. Additional studies have also reported no significant differences between males and females on measures of career indecision (Cellini, 1978; Limburg, 1978; Niece & Bradley, 1979; Osipow et al., 1976).

A study of freshman norms found male college students to have less indecision when compared to females (Gordon & Osipow, 1976a). This gender finding was also reported by Westbrook et al., 1980). Contrary to these findings, Taylor (1979) found females to report lower levels of indecision when compared to males.

Bergeron and Romano (1994) examined differences in vocational decision (tentatively undecided, undecided, and decided) college undergraduate students, decision making self-efficacy, and gender. A significant three-way interaction for career indecision, major indecision, and gender was found. More specifically, for those who were vocationally decided, gender and major decision level had an interactive effect without major or gender independently having an effect. For those who were undecided in their major, career decision level and gender had a significant interactive effect

without career or gender independently having an effect. For females, career decision level and the interaction effect of major decision level and career decision level were significant. Other gender differences included females responding yes more often to the question "Would you consider an occupation that you perceived to be dominated by the opposite sex?" and more males responding yes to the question "Do you feel your choice of a major is as important as your choice of a career?"

While several significant interaction effects were found to be significant, other analyses of the Bergeron and Romano (1994) study revealed no significant gender differences. No differences were found between gender and the three levels of vocational decision, nor were any differences found between gender and three levels of college major indecision (decided upon a major, tentatively decided, or undecided). In addition, no differences were found between males and females on career decision making self-efficacy.

While the Bergeron and Romano (1994) study provided a rich base of data, specific patterns were not able to be ascertained. Further, no gender differences were found for levels of vocational indecision, levels of major decision, or career decision making self-efficacy. However, the authors did concluded that "It appears that different processes are at work depending upon the specific level of vocational indecision, major indecision, and gender" (p. 23).

Although Bergeron and Romano (1994) didn't find significant gender differences for self-efficacy, this is not consistent with other research (Betz & Hackett, 1981; Post-Kammer & Smith, 1985) leading to the suggestion that "gender differences in self-efficacy are less likely when pertaining to nongender-linked behaviors" (Bergeron & Romano, 1994, p. 23).

Further examination into gender differences and career decision making was conducted by O'Hare and Beutell (1987) who focused on coping differences of

undergraduate students. Men and women were found to have significant differences on three of the four coping factors. Males scores higher on self-efficacy behavior while women scored higher on reactive behavior and support-seeking behavior suggesting novel experiences for each gender.

Career Development Differences in Academic Class

Little research has been conducted examining differences on career development variables across academic class. Blann (1985) looked at the ability to formulate mature educational and career plans of college high- and low-level athletes, and non-athletes. All female and male upperclassmen (juniors and seniors) had higher scores on measures of educational and career plans than female and male underclassmen (freshmen and sophomores). Blann (1985) suggests the transition into the junior year is a significant milestone where students begin to formulate more mature educational and career plans. Limburg (1978) found significant group differences on career indecision across academic class, with freshman college students reporting higher levels of indecision compared to seniors. Career decision normative data for college students presented by Osipow (1987) shows similar trends to Blann (1985) for both the Indecision and Certainly scales. However, more information specific to the effect of academic class and career development is needed.

Effect of Race on Career Development

It is believed that race can also have an effect on career development. Yet, the effect of race-ethnicity and career remains in question (Hackett & Lent, 1992; Tomlinson & Evans-Hughes, 1991). While some studies exist looking at racial and ethnicity differences, they are often methodologically flawed by confounding race and socioeconomic status (Slaney & Brown, 1983). Despite these limitations, it remains important to at least present the potential effect of race on career developmental issues.

Arbona and Novy (1991) studied the career expectations and aspirations of African-American, Mexican-American, and White college freshmen. A significant association between ethnicity and career expectations was found for both men and women. However, it is noted that the practical significance of the association between ethnicity and career expectation was limited. No significant effect was found for either males or females for career aspirations. Slaney and Brown (1983) noted significant racial differences such as African-Americans reporting less career indecision than white participants.

Contrary to other research, Tomlinson and Evans-Hughes (1991) reported no differences across occupational preference between white, African American, and Hispanic men and women.

More research is needed to understand the impact of athletic status, academic class, and demographic characteristics such as gender on the career development process. This study examined the effect of athletic status, academic class, and gender on measures of career indecision and negative career thinking.

CHAPTER THREE

METHOD

Participants

Participants included college students at Oklahoma State University (OSU) who were athletes (as identified by university records) and non-athletes. The university athletic records were provided by OSU's athletic department. The athlete group consisted of 84 females (n = 28) and males (n = 56) who were identified as being members of one of the University's intercollegiate athletic teams. Athletes from all intercollegiate teams were invited for inclusion. The teams included in the study were: men's football, men's and women's basketball, men's baseball, women's softball, men's wrestling, men's and women's swimming and diving, men's and women's tennis, men's and women's track, and men's and women's golf. The final sample consisted of those teams who were willing to participate.

The final non-athlete group consisted of 116 females (n = 67) and males (n = 49) who were not identified as being members of a University intercollegiate athletic team. Non-athletes were recruited from undergraduate classes in Introductory Sociology and Total Wellness.

Initially, the mean ages between the athlete and non-athlete samples were very similar, but the standard deviations were not close to being equal. This occurred because college athletes are typically 18-24 years of age. The non-athlete sample, however, initially included several non-traditional students whose ages reached over 50 years old. In order to create athlete and non-athlete samples that were more similar, the eight age outliers (26-52) were not included in the final non-athlete sample.

The age range for the total sample was 18 to 25 years of age, with the mean being 19.85 years and a standard deviation of 1.59. The total sample consisted of 95 males (48%) and 105 females (52%). In terms of race, 16% (n=31) were African-

Americans/Black, 2% (n = 4) were American Indian/Native Americans, 2% (n = 4) were Asian/Asian American, 78% (n = 156) were European American/White, 1% (n = 2) were Hispanic/Latino(a), 1% (n = 2) classified themselves as other, and 1 person did not respond to this question.

Within the athlete group, 32% (n = 27) were African-American/Black, 1% (n = 1) were American Indian/Native American, 66% (n = 55) were Caucasian/White, and 1% (n = 1) classified themselves as other. Within the non-athlete group, 3% (n = 4) were African-American/Black, 3% (n = 3) were American Indian/Native American, 3% (n = 4) were Asian/Asian American, 87% (n = 101) were Caucasian/White, 2% (n = 2) were Hispanic/Latino(a), 1% (n = 1) classified themselves as other, and 1 person did not respond to this question.

Participants initially indicated their family's annual income based on one of 12 income categories on the demographic sheet. These 12 groups were then collapsed into three groups categorized as high, medium, and low income classes based on U.S. Census Data (1997). Twenty-one percent (n = 42) reported their family's annual income to be less than $30,000 (low), 42% (n = 84) reported their family's annual income to be between $30,001 and $70,000 (medium), while 37% (n = 74) reported their family's annual income to be over $70,000 (high). Seventy percent (n = 139) of the total sample were underclassmen and 30% (n = 61) were upperclassmen.

Respondents were asked to indicate their likelihood of playing professional athletics based on a 5-point Likert scale. Only responses from athletes were analyzed. Fifteen percent indicated their likelihood of playing professional athletics was "very likely," and 18% indicated their likelihood was "likely." Twenty-four percent indicated their likelihood was moderate, while 17% indicated their likelihood was "not likely" and 26% indicated their likelihood was "very unlikely."

Respondents were also asked to indicate their level of commitment to their sport based on a 5-point Likert scale. Only responses from athletes were analyzed. Seventy-four percent indicated they were "highly committed," while 23% were "committed." Two percent indicated they were moderately committed, and 1% indicated they were not committed.

Instruments

Career Thoughts Inventory (CTI; Sampson et al., 1996). The CTI is a 48-item questionnaire that assesses dysfunctional thinking in career problem solving and decision making. Participants were asked to indicate their level of agreement on each item on the CTI. Responses are based on a 4-point Likert-type scale which include "Strongly Disagree (SD)," "Disagree (D)," "Agree (A)," or "Strongly Agree (SA)." Examples of CTI items include "I'll never find a field of study or occupation I really like" and "Choosing an occupation is so complex, I'll never be able to make a good choice."

The CTI provides a single, global indicator of dysfunctional thinking in addition to three construct scales. Scores on the CTI can range from 0 to 144. Higher scores indicate more negative, dysfunctional career thinking patterns that could interfere with the career decision-making and/or problem solving process. Norm data reported a mean score of 47.01 (SD = 20.89) for college students.

The CTI includes three subscales: Decision-Making Confusion, Commitment Anxiety, and External Conflict. The Decision Making Confusion (DMC) subscale consists of 14 items assessing difficulty beginning and maintaining the decision making process. A sample item of the DMC subscale is "I can't think of any fields of study or occupations that would suit me." Norm data reported a mean score of 10.72 (SD = 7.39) for college students.

The Commitment Anxiety (CA) subscale includes 10 items which assesses the inability to make a commitment to a specific career choice. An example of this subscale

is "I worry a great deal about choosing the right field of study or occupation." Norm data reported a mean score of 12.92 (SD = 5.36) for college students.

The 5-item External Conflict (EC) subscale assesses an inability to balance self-input and input from significant others. A sample item of this subscale is "I know what job I want, but someone's always putting obstacles in my way." Norm data reported a mean of 3.32 (SD = 2.15) for college students.

The CTI has a test-retest correlation coefficient of .77 across a four-week interval for the total normative sample (Sampson et al., 1996). The CTI subscales also showed sufficient 4-week test-retest correlations of .77 for DMC, .75 for CA, and .63 for EC. For the college student norm group, four-week test-retest correlations were higher compared to the total normative sample for the total score (r = .86) and all three subscales (DMC, r = .82; CA, r = ,79; EC, r = .74). Internal consistency coefficients for the CTI total score were rather high ranging from .93-.97 (Sampson et al., 1996). Internal consistency coefficients for the subscales are also adequate (DMC = .90-.94; CA = .79-.91; EC = .74-.81) (Sampson et al., 1996).

The CTI total score was found to be highly correlated (.89-.94) with the DMC subscale across different norm populations, including college students and the total norm sample. Other intercorrelations between the CTI total score and other subscales ranged from .58 to .88 for the total normative sample, and a range of .52 to .86 for the college student sample. Principal components analysis lead to a three-factor model consisting of the three subscales. The three-factor solution accounted for 47.3% of the variance in the total norm sample, and 45.5% of the variance in the college student sample. Overall, career problem solving and decision making appears to be affected by a single factor. Sampson et al. (1996) concluded "all three constructs may be viewed as indicators of the presence of dysfunctional thinking that constrains the cognitive system undergriding career problem solving and decision making" (p. 58).

The CTI is a valid measure of dysfunctional career thinking. Scores from the CTI total and three subscales have been correlated with other career and personality constructs in a college student sample to assess convergent validity using Pearson product-moment correlation coefficients (Sampson et al., 1996). Relationships were found to be in the expected direction for all groups. Correlations between CTI scores and three scores from My Vocational Situation (Holland, Daiger, & Power, 1980) ranged from -.24 to -.69. Correlations between CTI scores and two scores from the Career Decision Scale (Osipow, Carney, Winer, Yanico, & Koschier, 1987) ranged from -.29 to -.61 for the Certainty subscale, and .45 to .70 for the Indecision subscale. CTI correlations with the Career Decision Profile (Jones, 1988) ranged from -.20 to –.59. Correlations between the CTI and the Revised NEO-Personality Inventory (Costa & McCrae, 1992) ranged from .13 to .56.

The CTI was shown to accurately discriminate between college career service clients and non-clients (Sampson et al., 1996), thus, supporting criterion-related validity.

The CTI total score is the sum of the three subscales (Commitment Anxiety, Decision-Making Confusion, and External Conflict). Due to the CTIs high intercorrelations with the three subscales, it did not contribute much new variance to the study and thus the CTI Total Score was not used.

Career Decision Scale (CDS; Osipow, 1987). Career decidedness will be assessed using the Career Decision Scale. This 19-item scale measures an individual's level of career indecision. The first 18 items are statements to which respondents indicate likeness to themselves based on a 4-point Likert-type scale (i.e., 4 is exactly like me, 3 is very much like me, 2 is only slightly like me, and 1 is not at all like me). The final item is open-ended and allows for respondents to self-describe themselves better than the other 18 items.

The Certainty scale consists of two questions which assesses the degree of certainty a student has in the process of deciding on a major and a career. Low scores, or those equal to or less than the 15th percentile, indicate a great deal of uncertainty concerning the selection of a major and/or a career. A sample item of the Certainty scale is "I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice." College student norm data reported males to have a mean score of 6.19 (SD = 1.42) on the Certainty scale, and females reported a mean score of 5.87 (SD = 1.65).

The Indecision scale consists of 16 items which serves as a measure of career indecision. High scores, or those which equal or exceed the 85th percentile, indicate a significant and seriously high level of indecision. A sample item of this scale is "I want to be absolutely certain that my career choice is the "right" one, but none of the careers I know about seem ideal for me." College student norm data reported males to have a mean score of 26.83 (SD = 7.78) on the Indecision scale, and females reported a mean score of 26.88 (SD = 8.55).

Osipow, Carney, and Barak (1976) used two different samples to college students over a 14-day period to find two test-retest correlations of .90 and .82 for the Indecision scale. Item correlations for the Certainty and Indecision scales ranged from .34 to .82. A second study found similar reliability results. Slaney, Palko-Nonemaker, and Alexander (1981) found six week interval test-retest item reliability correlations to range from .19 to .70 for the Certainty and Indecision Scale items, and a total CDS correlation of .70.

Several studies have been conducted looking at the validity of the Career Decision Scale. Osipow and Schweikert (1981) assessed concurrent validity of the CDS by comparing scores to those on the Assessment of Career Decision Making (ACDM). A significant correlation in the expected direction was found between indecision scores on

both scales (r = .-26). Also as expected, the CDS was found to be negatively correlated with planfulness as measured by the ACDM.

Slaney (1980) found the CDS to differentiate between college students who did not have a first choice on the Occupational Alternatives Question and those who did. Limburg (1978) also found the CDS to differentiate between decided and undecided students. It was concluded that "studies have supported the validity of the Career Decision Scale" (Osipow, 1987, p. 5).

The results from this study found the Indecision and Certainty scales to have a correlation of –0.61. This is markedly higher than what has been found in previous research.

Procedure

Students were tested in the winter, spring, and summer of 1998. Participants were read a script which described the purpose and procedure for the study. Participants who were tested in classrooms were read a script which indicated the incentive for participating was extra credit as provided by the instructor. These were predominantly non-athletes, but there were a few athletes who were tested in classes. Participants who were tested through the athletic department (all athletes) were read a very similar script, with the only difference being that the incentive offered was their choice of a candy bar instead of extra credit. All participants received a packet that included an informed consent form, a demographic sheet, a resource sheet, the CTI, and the CDS. The contents of the packets were put in a randomized order to control for order effects.

Athletes were recruited with assistance of the athletic department on a voluntary basis. Data for the athlete group was collected several different ways. Some athletes were asked to voluntarily participate by the University athletic office and were tested as they came through the office to complete paperwork, pick up awards, etc. Others completed the materials during courses as they happened to be enrolled in some of the

classes where the non-athlete sample was collected. As an incentive, athletes who were tested outside of classes were offered their choice of a candy bar for their participation. Those who were tested during classes received the same amount of extra credit allowed by the instructor for all members of the class.

Those students in the non-athletic group were asked to participate on a voluntary basis during regular class meeting times. Students were recruited from undergraduate classes in Introductory Sociology, and Total Wellness. Extra credit was given to students for participation with the consent of the instructor.

Design of the Study

The design for this study was a 2x2x2 multivariate analysis of variance (MANOVA). The three independent variables included gender (female and male), athletic status (athletes and non-athletes), and class (underclass = freshman and sophomore students as a group, and upperclass = junior and senior students as a group). The dependent variables were two subscale scores from the CDS (Certainty and Indecision), and three from the CTI (Commitment Anxiety, Decision-Making Confusion, and External Conflict). A separate 2x2 MANOVA was conducted to look at differences on the CDS and CTI. The two independent variables were gender (male and female) and type of sport (major and minor). The dependent variables were subscale scores on the CDS (Certainty and Indecision) and CTI (Commitment Anxiety, Decision-Making Confusion, and External Conflict).

Independent Variables

Athletic Status

One of the purposes of this study was to look at differences on dysfunctional career thinking patterns and levels of career indecision between athletes and non-athletes, and differences within differing athletic groups. Thus, the first independent variable in

this study was athletic status. Participants were categorized as either having athletic status or non-athletic status.

Subclassifications existed within the athletic status group. Sports were to be categorized as either major or minor sports for male and female athletes. A male who was identified in University athletic records as being a member of the University's men's basketball or football intercollegiate athletic team either as a scholarship or non-scholarship participant was classified in the male-major sport group. A male who was identified in University athletic records as being a member of the men's intercollegiate athletic baseball, golf, tennis, wrestling, or track team as a scholarship or non-scholarship participant was classified as male-minor. A female who was identified in University athletic records as being a member of the women's basketball or softball intercollegiate athletic team either as a scholarship or non-scholarship participant was classified as female-major. Female athletes who were identified in University records as being a member of the women's golf, tennis, or track intercollegiate athletic team either as a scholarship or non-scholarship athlete participant were classified as female-minor. Non-athletic status was defined as a male or female who was not identified in University athletic records as being a member of a University intercollegiate athletic team either as a scholarship or non-scholarship athlete.

Gender Variable

Also of interest in this study was the effect of gender on dysfunctional career thinking and career indecision. The second independent variable is gender. Participants were classified either as male or female.

Academic Class Variable

Academic class served as another independent variable. Academic class was divided into two groups based on the number of completed academic credits: underclass and upperclass students. Students who passed 59 or less semester credit hours were

classified as underclass students, and students who passed 60 or more semester credit hours were classified as upperclass students.

Type of Sport

Athletes were classified into one of four groups: female-major sport, female-minor sport, male-major sport, and male-minor sport. Female-major sport athletes were members of the University's women's intercollegiate basketball or softball team either as a scholarship or non-scholarship athlete. Female-minor sport athletes were members of the University's women's intercollegiate tennis, golf, soccer, or track team as a scholarship or non-scholarship athlete. Male-major sport athletes were members of the University's men's intercollegiate basketball or football team either as a scholarship or non-scholarship athlete. Male-minor sport athletes were members of the University's men's intercollegiate baseball, track, wrestling, golf, or tennis team as a scholarship or non-scholarship athlete.

Dependent Variables

Career Indecision Variable

The first set of dependent variables was levels of career indecision indicated by the Career Decision Scale subscales: Certainty and Indecision

Dysfunctional Career Thinking Variable

The second set of dependent variable was dysfunctional career thinking as indicated by the subscale scores on the Career Thoughts Inventory: Commitment Anxiety, Decision-Making Confusion, and External Conflict.

CHAPTER FOUR

RESULTS

The purpose of this study was to examine the relationships of athletic status, gender, and academic class on negative career thinking patterns and career decidedness in college students. A 2 (athlete vs. non-athlete) x 2 (male vs. female) x 2 (underclass vs. upperclass) MANOVA was conducted with negative career thoughts (Commitment Anxiety, Decision-Making Confusion, External Conflict) and career decidedness (Certainty, Indecision) as the dependent variables. In addition, athletes' negative career thoughts and career decidedness were explored by gender and type of sport. A 2 (male vs. female) x 2 (major sport vs. minor sport) MANOVA was conducted with negative career thoughts (Commitment Anxiety, Decision-Making Confusion, External Conflict) and career decidedness (Certainty, Indecision) as the dependent variables.

Research Questions:

Research Question 1: What are the effects of athletic status, sex, and academic class on career decidedness and negative career thoughts both individually and collectively? First, it was hypothesized that male, underclass athletes would report the highest levels of career indecision and the most negative career thinking when compared to other groups. The five dependent variables, Certainty, Indecision, Commitment Anxiety, Decision-Making Confusion, and External Conflict, were analyzed using a 2 (athlete vs. non-athlete) x2 (underclass vs. upperclass) x 2 (male vs. female) multivariate analysis of variance (MANOVA). No significant interaction effects were found across athletic status, gender, and class for the five dependent variables $F(5,188) = 1.33$, $p =$

0.25. The means and standard deviations for each of the five dependent variables by athletic status, gender, and academic class are presented in Tables 1-5.

Table 1

Means and Standard Deviations for Certainty Subscale Scores by Athletic Status, Academic, and Gender in College Students (N = 200)

	Athletes		Non-Athletes	
	Males	Females	Males	Females
Underclassman Students	M = 5.95 SD = 1.63 n = 38	M = 5.37 SD = 2.01 n = 19	M = 5.51 SD = 1.72 n = 35	M = 5.94 SD = 1.81 n = 47
Upperclassman Students	M = 5.78 SD = 1.87 n = 18	M = 6.67 SD = 0.71 n = 9	M = 6.50 SD = 1.91 n = 14	M = 6.80 SD = 1.47 n = 20

Table 2

Means and Standard Deviations for Indecision Subscale Scores by Athletic Status, Academic Class, and Gender in College Students (N = 200)

	Athletes		Non-Athletes	
	Males	Females	Males	Females
Underclassman Students	M = 33.16 SD = 8.45 n = 38	M = 30.74 SD = 10.24 n = 19	M = 31.91 SD = 9.08 n=35	M = 28.64 SD = 8.28 n = 47
Upperclassman Students	M = 33.28 SD = 9.46 n = 18	M = 26.33 SD = 9.41 n = 9	M = 29.29 SD = 12.34 n = 14	M = 24.40 SD = 8.60 n = 20

Table 3

Means and Standard Deviations for Commitment Anxiety Subscale Scores by Athletic Status, Academic Class, and Gender in College Students (N = 200)

	Athletes		Non-Athletes	
	Males	Females	Males	Females
Underclassman Students	M = 12.42 SD = 4.39 n = 38	M = 13.26 SD = 5.68 n = 19	M = 13.77 SD = 4.54 n = 35	M = 13.30 SD = 6.05 n = 47
Underclassman Students	M = 13.22 SD = 3.54 n = 18	M = 9.11 SD = 5.35 n = 9	M = 10.29 SD = 5.98 n = 14	M = 9.85 SD = 5.73 n = 20

Table 4

Means and Standard Deviations for Decision-Making Confusion Subscale Scores by Athletic Status, Academic Class, and Gender in College Students (N = 200)

	Athletes		Non-Athletes	
	Males	Females	Males	Females
Underclassman Students	M = 10.61 SD = 5.58 n = 38	M = 9.21 SD = 7.96 n = 19	M = 10.91 SD = 5.62 n = 35	M = 9.96 SD = 7.39 n = 47
Underclassman Students	M=10.94 SD = 6.92 n = 18	M = 5.11 SD = 5.56 n = 9	M = 11.00 SD = 8.85 n = 14	M = 5.90 SD = 6.65 n = 20

Table 5

Means and Standard Deviations for External Conflict Subscale Scores by Athletic Status, Academic Class, and Gender in College Students (N = 200)

	Athletes		Non-Athletes	
Underclassman	M = 4.63	M = 2.95	M = 4.69	M = 4.66
Students	SD = 2.03	SD = 2.59	SD = 2.11	SD = 3.25
	n = 38	n = 19	n = 35	n = 47
Underclassman	M = 4.72	M = 2.22	M = 4.07	M = 3.25
Students	SD = 3.01	SD = 2.64	SD = 3.27	SD = 3.23
	n = 18	n = 9	n = 14	n = 20

Second, it was hypothesized that athletes would report higher levels of career indecision and higher levels of negative career thinking compared to non-athletes. The main effect for athletic status was not found to be statistically significant, $F(5,188) = 1.57$, $p = 0.17$. Athletes and non-athletes were not found to differ significantly on their levels of career indecision and negative career thinking when considered together.

Third, it was hypothesized that college underclass students would report higher levels of career indecision and negative career thinking when compared to upperclass students. There was a significant main effect for academic class, indicating statistically significant differences between underclass and upperclass students on levels of career indecision and negative career thoughts, $F(5,188) = 2.41$, $p = 0.04$. Univariate analyses indicated specific group differences for the Commitment Anxiety $F(1,192) = 9.35$, $p = 0.00$ and Certainty $F(1,192) = 7.12$, $p = 0.01$ subscales, but not Indecision $F(1,192) = 3.56$, $p = 0.06$, Decision-Making Confusion $F(1,192) = 3.05$, $p = 0.83$, or External Conflict $F(1,192) = 2.23$, $p = 0.14$. Underclass college students reported more commitment anxiety and less certainty regarding their career choice than upperclass college students.

Fourth, it was hypothesized that college men would report higher levels of career indecision and negative career thinking compared to college women. The main effect for gender analysis indicated statistically significant differences between males and females $F(5,188) = 3.95$, $p = 0.00$. Univariate analyses indicated significant group differences for the Indecision $F(1,192) = 8.79$, $p = 0.00$, Decision-Making Confusion $F(1,192) = 8.99$, $p = 0.00$, and External Conflict $F(1,192) = 8.00$, $p = 0.01$ subscales, but not Certainty $F(1,192) = 0.86$, $p = 0.36$, or Commitment Anxiety $F(1,192) = 1.54$, $p = 0.22$. This

indicated that male college students reported more indecision, decision-making confusion, and external conflict regarding their career choice than female college students.

Discriminant function analyses were conducted to describe major differences between the gender and academic class groups on the dependent variables. Commitment Anxiety and Certainty were found to discriminate between upperclass and underclass students. Results are presented in Table 6.

For gender, Decision-Making Confusion, External Conflict, and Indecision were found to significantly discriminate between males and females. The results are presented in Table 7.

Research Question 2: What are the effects of type of sport (major vs. minor) and gender on levels of career decidedness and negative career thinking patterns both individually and collectively? First, it was hypothesized that male athletes in major sports would have higher levels of career indecision and negative career thinking compared to male athletes in minor sports and female athletes in major and minor sports. A 2 (major vs. minor sport) x 2 (males vs. females) MANOVA procedure was conducted with Certainty, Indecision, Commitment Anxiety, Decision-Making Confusion, and External Conflict as the dependent variables. No significant interaction effects were found $F(5,76) = 1.93$, $p = 0.10$. The means and standard deviations for each of the five dependent variables are presented in Tables 8-12.

Second, it was hypothesized that male athletes would report higher levels of career indecision and negative career thinking than female athletes. Significant main effects were found for gender $F(5,76) = 2.56$, $p = 0.03$. Univariate analyses for gender

Table 6

Summary of Discriminant Function Analysis for Career Decidedness and Negative Career Thoughts by Academic Class

Variables	Standardized discriminant function coefficients	Structure coefficients
Decision-Making Confusion	-0.50	0.53
External Conflict	0.20	0.50
CDSSUB1 (Certainty)	-0.61	-0.76
CDSSUB2 (Indecision)	-0.20	0.55
Commitment Anxiety	0.91	0.89

Table 7

Summary of Discriminant Function Analysis for Career Decidedness and Negative Career Thoughts by Gender

Variables	Standardized discriminant function coefficients	Structure coefficients
Decision-Making Confusion	0.63	0.52
External Conflict	0.25	0.44
CDSSUB1 (Certainty)	0.39	-0.20
CDSSUB 2 (Indecision)	1.09	0.72
Commitment Anxiety	-0.94	0.16

Table 8

Means and Standard Deviations for Certainty Subscale Scores by Gender and Type of Sport in College Athletes (N = 84)

	Major Sports	Minor Sports
Males	M = 5.95 SD = 1.68 n = 37	M = 5.79 SD = 1.75 n = 19
Females	M = 5.67 SD = 2.00 n = 9	M = 5.84 SD = 1.74 n = 19

Table 9

Means and Standard Deviations for Indecision Subscale Scores by Gender and Type of Sport in College Athletes (N = 84)

	Major Sports	Minor Sports
Males	M=32.81 SD=8.40 n=37	M=33.95 SD=9.44 n=19
Females	M=28.67 SD=10.65 n=9	M=29.63 SD=10.00 n=19

Table 10

Means and Standard Deviations for Commitment Anxiety Subscale Scores by Gender and Type of Sport in College Athletes (N = 84)

	Major Sports	Minor Sports
Males	M = 12.14 SD = 4.10 n = 37	M = 13.74 SD = 4.05 n = 19
Females	M = 12.67 SD = 6.21 n = 9	M = 11.58 SD = 5.77 n = 19

Table 11

Means and Standard Deviations for Decision-Making Confusion Subscale Scores by Gender and Type of Sport in College Athletes (N = 84)

	Major Sports	Minor Sports
Males	M = 10.51 SD = 6.06 n = 37	M = 11.11 SD = 5.97 n = 19
Females	M = 9.67 SD = 8.62 n = 9	M = 7.05 SD = 6.88 n = 19

Table 12

Means and Standard Deviations for External Conflict Subscale Scores by Gender and Type of Sport in College Athletes (N = 84)

	Major Sports	Minor Sports
Males	M = 5.11 SD = 2.30 n = 37	M = 3.79 SD = 2.30 n = 19
Females	M = 2.67 SD = 2.40 n = 9	M = 2.74 SD = 2.73 n = 19

revealed significant group differences on the External Conflict subscale $F(1,80) = 8.64$, $p = 0.00$, but not Certainty $F(1,80) = 0.07$, $p = 0.80$, Indecision $F(1,80) = 3.43$, $p = 0.07$, Commitment Anxiety $F(1,80) = 0.48$, $p = 0.49$, or Decision-Making Confusion $F(1,80) = 2.31$, $p = 0.13$. Male athletes reported more external conflict regarding their career decisions than female athletes. This suggests that male athletes reported more difficulty balancing their own self-perceptions from the input of others concerning career-related decisions.

Third, it was hypothesized that male and female athletes in major sports would have higher levels of career indecision and negative career thinking compared to male and female athletes in minor sports. Significant main effects were not found for type of sport $F(5,76) = 0.56$, $p = 0.73$. Thus, no significant group differences were found between athletes in major and minor sports.

A discriminant function analysis was then conducted to describe major differences on the dependent variables between the gender groups for the athletic subsample (males vs. females). The variables which were found to significantly discriminate between the female and male athletic groups included Decision-Making Confusion, External Conflict, and Indecision. Results of this analysis are presented in Table 13.

Procedural Analyses

Prior to conducting MANOVA analyses, steps were taken to determine if the subsamples were equivalent or matched on demographic variables that were not a part of the MANOVA design including age, race, and income. An independent t- test for age revealed no significant age differences between the athlete ($M = 19.64$, $SD = 1.79$)

Table 13

Summary of Discriminant Function Analysis for Career Decidedness and Negative Career Thoughts by Male Athletes versus Female Athletes

Variables	Standardized discriminant function coefficients	Structure coefficients
Decision-Making Confusion	0.43	0.45
External Conflict	0.81	0.83
CDSSUB1 (Certainty)	0.48	0.06
CDSSUB2 (Indecision)	0.46	0.44
Commitment Anxiety	-0.59	0.16

and non-athlete (M = 19.99, SD = 1.42) groups t (1,198) = -1.54, p = 0.13. Preliminary analyses were also conducted for the categorical demographic variables income and race. Using Chi-square procedures, no statistically significant differences were found between the athlete and non-athlete group for income, X^2 (2, N = 200) = 0.64, p = 0.73; however, statistically significant differences were found between athlete and non-athlete samples for race, X^2 (1, N = 199) = 14.32, p = 0.00. A one-way analysis of variance (ANOVA) was run for race (white vs. non-white) and the five dependent variables, Certainty, Indecision, Decision-Making Confusion, Commitment Anxiety, External Conflict. One-way ANOVA results indicated significant group differences on the Indecision F(1,197) = 4.15, p = 0.43 and External Conflict F(1,197) = 8.33, p = 0.00 subscales, but not Certainty F(1,197) = 0.02, p = 0.88, Decision-Making Confusion F(1,197) = 1.16, p = 0.28, or Commitment Anxiety F(1,197) = 0.00, p = 1.00. White students reported lower levels of indecision regarding their career choice, and less external conflict than non-white students.

Strong intercorrelations were found between all of the dependent variables. See Table 14 for the intercorrelations.

Post-hoc Analyses

Race and Athletic Status

Given the racial composition differences in the athlete and non-athlete groups in this college sample, post-hoc analyses were conducted to evaluate the effect of race on levels of career decidedness and negative career thoughts. More specifically, the effects of 1) race and athletic status, 2) race and academic class, and 3) race and gender on levels of career decidedness and negative career thoughts were explored. A 2 (white and

Table 14

Intercorrelations Between Dependent Variable Subscales

Subscale	CDSSUB1	CDSSUB2	CA	DMC	EC
CDSSUB1	--				
CDSSUB2	-0.61**	--			
CA	-0.60**	0.66**	--		
DMC	-0.63**	0.62**	0.72**	--	
EC	-0.28**	0.46**	0.59**	0.60**	--

CSSUB1 = Certainty; CDSSUB2 = Indecision; CA = Commitment Anxiety;

DMC = Decision-Making Confusion; EC = External Conflict

**=correlation is significant at the 0.01 level (2-tailed)

non-white) x2 (athlete and non-athlete) MANOVA was conducted with Certainty, Indecision, Commitment Anxiety, Decision-Making Confusion, and External Conflict was the dependent variables. Results indicated no significant interaction effects $F(5,191) = 0.43$, $p = 0.83$. A main effect was found for race $F(5,191) = 3.18$, $p = 0.01$, but not athletic status $F(5,191) = 1.64$, $p = 0.15$. Univariate analyses for the significant race main effect revealed significant differences on the External Conflict subscale $F(1,195) = 9.20$, $p = 0.00$, but not Certainty $F(1,195) = 0.00$, $p = 0.93$, Indecision $F(1,195) = 1.90$, $p = 0.17$, Commitment Anxiety $F(1,195) = 0.01$, $p = 0.93$, or Decision-Making Confusion $F(1,195) = 1.00$, $p = 0.32$. White students ($M = 3.78$, $SD = 0.23$) reported less external conflict than did non-white students ($M = 5.30$, $SD = 0.45$). This suggested that white students had less difficulty balancing their self-perceptions from the input of others regarding career decisions than did non-white students.

Race and Class

A 2 (white and non-white) x 2 (underclass and upperclass) MANOVA was conducted with Certainty, Indecision, Commitment Anxiety, Decision-Making Confusion, and External Conflict as dependent variables. A significant interaction effect was found between class and race on levels of career decidedness and negative career thoughts $F(5,191) = 3.20$, $p = 0.01$.

Given this significant interaction effect, simple main effects were conducted to explore differences between racial categories within academic class (underclass and upperclass) on levels of career decidedness and negative career thoughts. Simple main effects revealed significant differences between white and non-white upperclass students within academic class on Certainty $F(1,198) = 10.00$, $p = 0.00$, Indecision $F(1,198) =$

12.51, $p = 0.00$, Commitment Anxiety $F(1,198) = 6.08$, $p = 0.01$, Decision-Making Confusion $F(1,198) = 12.81$, $p = 0.00$, and External Conflict $F(1,198) = 20.55$, $p = 0.00$. This indicated that non-white, upperclass students reported less certainty and more indecision, commitment anxiety, decision-making confusion, and external conflict than did white, upperclass students. Figures 1-5 illustrate the interaction effects for each of the five dependent variables.

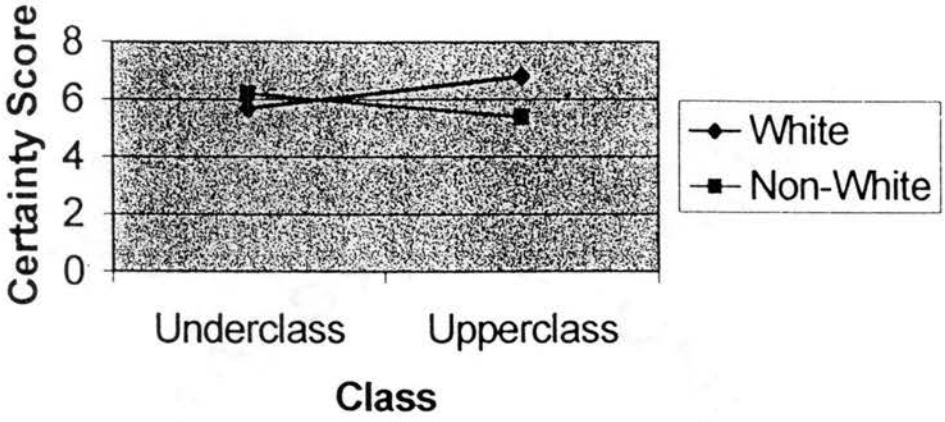

Figure 1. Mean Certainty scores of White and Non-White college students within Academic Class Categories. Scores on the Certainty scale can range from 2 to 8.

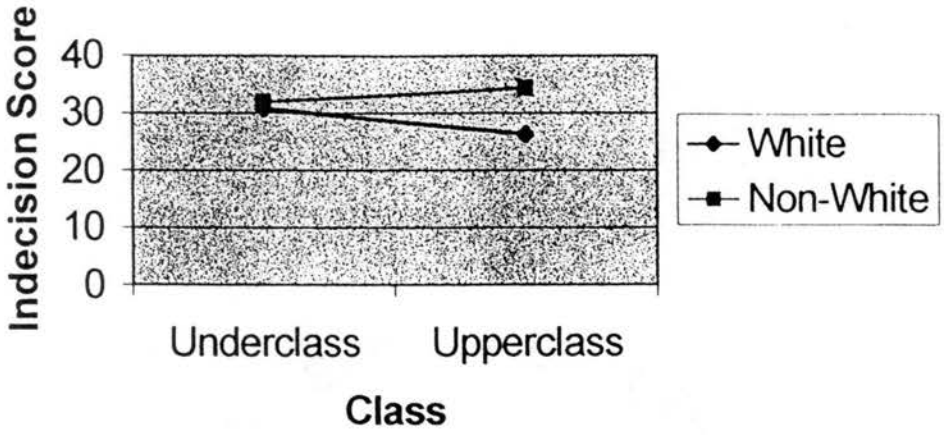

Figure 2. Mean Indecision scores of White and Non-White college students within Academic Class categories. Scores on the Indecision scale range can range from 16 to 64.

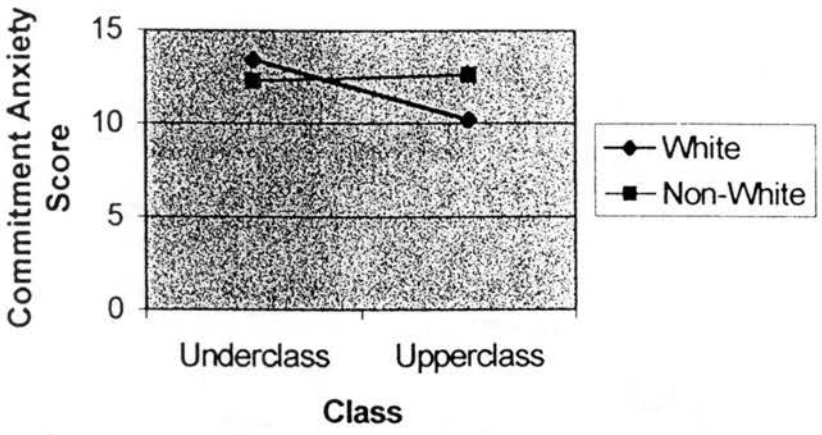

Figure 3. Mean Commitment Anxiety scores of White and Non-White college students within Academic Class categories. Scores on the Commitment Anxiety scale can range from 0 to 30.

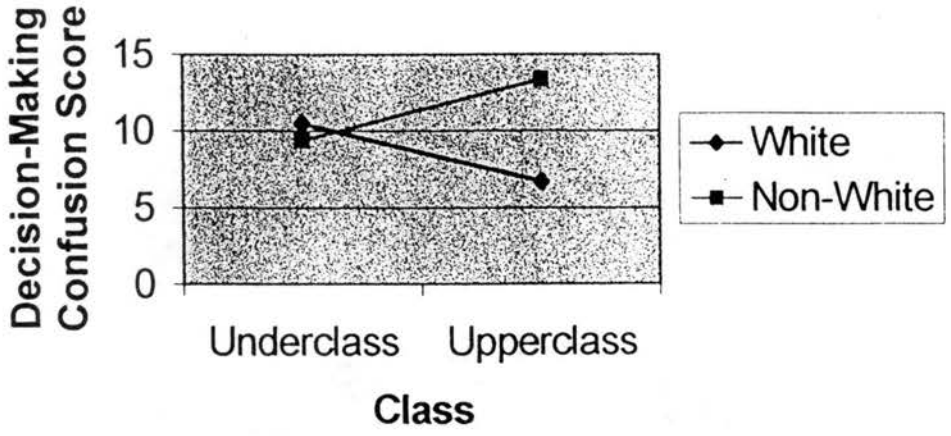

Figure 4. Mean Decision-Making Confusion scores of White and Non-White college students within Academic Class categories. Scores on the Decision-Making Confusion scale can range from 0 to 42.

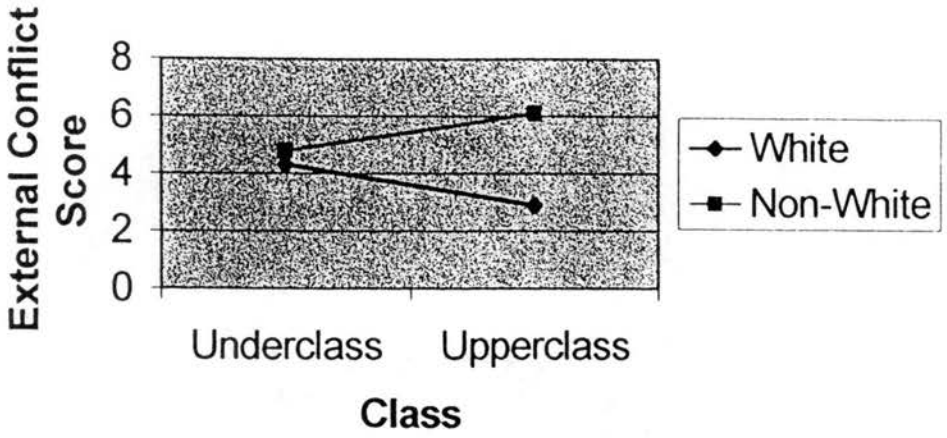

Figure 5. Mean External Conflict scores of White and Non-White college students within Academic Class categories. Scores on the External Conflict scale can range from 0 to 15.

A significant main effect was found for race $F(5,191) = 5.15$, $p = 0.00$, but not class $F(5,191) = 1.02$, $p = 0.41$. Follow-up univariate analyses for the race indicated significant group differences on the Indecision $F(1,195) = 7.49$, $p = 0.01$, Decision-Making Confusion $F(1,195) = 4.92$, $p = 0.03$, and External Conflict $F(1,195) = 14.57$, $p = 0.00$ subscales, but not Certainty $F(1.195) = 1.65$, $p = 0.20$ or Commitment Anxiety $F(1,195) = 0.55$, $p = 0.46$. This indicated that non-white students reported more career indecision, decision-making confusion, and external conflict than white students.

A chi-square procedure was conducted to determine if race equally distributed across class. Chi-square analysis indicated that there was a representative distribution across class, X^2 $(1, N = 199) = 0.15$, $p = 0.70$.

Race and Gender

A 2 (white and non-white) x2 (male and female) MANOVA was conducted with Certainty, Indecision, Commitment Anxiety, Decision-Making Confusion, and External Conflict as dependent variables. No significant interaction effect was found between race and gender, $F(5,191) = 1.92$, $p = 0.10$. A significant main effect was found for gender on levels of career decidedness and negative career thoughts $F(5,191) = 5.10$, $p = 0.00$, but not race $F(5,191) = 1.65$, $p = 0.15$. Follow-up univariate analyses for gender indicated significant differences between males and females on the Indecision $F(1,195) = 11.48$, $p = 0.00$ and Decision-Making Confusion $F(1,195) = 9.50$, $p = 0.00$ subscales, but not Certainty $F(1,195) = 1.00$, $p = 0.32$, Commitment Anxiety $F(1,195) = 0.86$, $p = 0.36$, or External Conflict $F(1,195) = 3.22$, $p = 0.74$. This indicated that males reported more indecision and decision-making confusion regarding their career choice than did females.

A chi-square procedure was employed to determine if race was equally distributed across gender. Chi-square analysis indicated there was an unequal racial distribution across gender, X^2 (1, $\underline{N}$ = 199) = 12.66, $\underline{p}$ = 0.00.

CHAPTER FIVE

DISCUSSION

This study examined the effects of athletic status, gender, and academic class on career decidedness and negative career thoughts in college students. Career decidedness included 1) level of certainty, and 2) career indecision. Negative career thoughts related to 1) anxiety about career commitment, 2) confusion regarding career decisions, and 3) external conflict related to career choice.

Based on the results of this study, athletic status, gender, and academic class were not found to collectively affect levels of career certainty, indecision, commitment anxiety, decision-making confusion, or external conflict. However, gender of the participants did have a significant effect on their levels of career indecision and negative career thoughts. College men reported higher levels of career indecision and negative career thoughts compared to college women.

Results from the previous literature examining the effect of gender on career indecision have been inconsistent. Some studies have found that male college students reported less career indecision compared to female college students (Gordon & Osipow, 1976a; Westbrook et al., 1980), whereas Taylor (1979a) reported females to have less career indecision compared to men. Numerous other studies (Cellini, 1978; Hartman et al., 1978; Larson et al., 1994; Limburg, 1978; Nice & Bradley, 1979; Osipow et al., 1976; Sutera, 1977) reported no differences between men and women on career indecision. The normative data for college students provided in the CDS manual (Osipow, 1987) also reported no significant differences for gender on levels of career indecision. There are numerous possible explanations for why males reported higher levels of career

indecision and negative career thinking in this study. As an example, males may have experienced more indecision and negative career thinking due to the importance of choosing a career based on traditional gender socialization that emphasizes their occupational role. Further, men may experience more external pressure to make career choices compared to women because they may have been socialized to view occupational status/choice as key to their identity. More negative career thoughts are related to this internal and external pressure.

Significant group differences between upperclass and lowerclass college students were also found for career decidedness and negative career thoughts. Upperclass college students reported less commitment anxiety and more certainty regarding their career choice than did underclass college students. This was an expected finding and makes intuitive sense as college students typically begin their college careers by exploring different majors and career options, and foreclose as they progress towards completion of college. This is consistent with other literature on career decidedness and academic class (Osipow, 1987). Similar patterns were reported by Blann (1985) who found students' educational and career plans matured as students progressed from underclass to upperclass status. Specific to negative career thoughts, this study provided previously unexplored evidence that college students' levels of dysfunctional career thinking tends to decrease as they progress from underclass to upperclass status.

Athletic status did not have a significant effect on levels of career indecision and negative career thoughts for college students. There are several explanations for the non-significant findings between the athlete and non-athlete groups. Athletes may have completed the measures believing in a career in professional athletics, thus leading to

lower scores on the CDS and CTI. In fact, one-third of the athletes in this survey indicated they their likelihood of playing professional athletics was "very likely" or "likely." This percentage is far higher than the average rate of 3-8% (Edwards, 1986; Remer et al., 1978) of college athletes who do play professional athletics. Therefore, some athletes may have erroneously high expectations for careers in professional sports and may later find themselves to have a higher degree of career indecision and negative career thoughts once they realize their true potential to play professionally. Unfortunately, this is likely to occur at the later stages of their academic careers or possibly after their educational opportunities have passed.

One of the other possible explanations for the non-significant athletic status findings was due to the sample size of the athlete group. The athlete sample was somewhat small (n=84), resulting in a small number of participants in some groups such as the major sport, upperclass females group (n=9). A larger sample may have resulted in different findings.

Another explanation for the non-significant findings may involve the definition of "athlete." The one common factor among the athlete group was their NCAA Division I intercollegiate athletic status. There may be unique intragroup differences (e.g., playing time, starting status) within the athlete sample that could make members of particular teams more likely to have career development difficulties. For example, football players from this sample might harbor thoughts of playing professionally since the football is competitive at the national level and has sent players to the professional ranks in the past. Players in less decorated sports such as track might have less difficulty with career development issues since their programs don't have the same level of a professional

track, and aren't as nationally competitive. Since the athletes were grouped under one global categorization, significant differences between athletes and non-athletes on career decidedness and negative career thoughts may have been lost. For this reason, efforts were made to look at intragroup differences such as type of sport (i.e., major/minor), but no significant differences were found based on these categorizations. Variables that create more similar subgroups (e.g., male basketball players as a group, female tennis players as a group, playing time, starting status, professional track) within the athlete group might have resulted in different findings.

The incentives offered to participants were different, and thus could have influenced how participants responded. Data collected from participants in classroom environments were offered varying levels of extra credit, depending on the instructor. Overall, however, the incentives for classroom participants were somewhat similar. The incentive for the athlete sample differed as they were offered a candy bar for their participation.

Procedural flaws could have also influenced the results found in this study. The data were collected at several different times, and in different ways. The non-athlete sample was collected from undergraduate classes in sociology and health. Data collected for the athlete sample were collected by asking athletes to participate as they came through the athletic department office. It is possible that that the athlete sample was not truly random, and there might have been common characteristics of the athletes who participated in the study. In addition, at times the primary researcher was able to be present, but other times not. Larger group administrations would have been a more efficient way to collect data in a standardized way.

The process of career development is rather complex. Certainly, factors such as career indecision and negative career thinking are critical to the process. However, there are other key factors that significantly influence the career decision-making process including career maturity, career interests, values, career barriers, and personality characteristics. Career maturity, the degree to which an individual has attitudes and competencies necessary for realistic career decision making (Crites, 1978), has already been studied among college athletes and non-athletes (i.e., Kennedy and Dimick 1987), concluding that college football and basketball players reported lower career maturity when compared to college non-athletes. Although these variables were not explored in this study, further research is needed to better understand the impact of student characteristics (e.g., athletic status, gender, and academic class) as well as environmental influences on a variety of factors associated with the career development program.

The demographic variable race became an important variable as the study progressed. Several statistical analyses indicated significant group differences between white and non-white students. Minority students reported greater levels of career indecision and negative career thinking compared to white students. Previous research in this area has been inconsistent. While some research has found African-American students to have more indecision when compared to white students (Westbrook et al., 1980), other research found white students to report higher levels of indecision when compared to minority students (Slaney & Bown, 1983). This adds to the questions surrounding the effect of race on career issues (Tomlinson & Evans-Hughes, 1991).

Specifically, the findings in this study indicated that upperclass minority students reported higher levels of indecision, commitment anxiety, decision-making confusion,

and external conflict, and less certainty than upperclass white students—both athletes and non-athletes. There have been several proposed reasons for why minority students might have greater difficulty with their career development including negative self-image, feelings of inadequacy surrounding work abilities, and a lack of faith in the effectiveness of career planning (Hotchkiss & Borow, 1996), and issues surrounding racial discrimination and social class (Leung, 1995). Other factors such as economic disadvantages or lower career salience for minorities might also have played a role. This raises questions for universities who must address this concern. Specific to this study, the sample in this study was primarily non-minority and from a university which is primarily non-minority. The results of this study might not generalize to campuses that have larger numbers of minority students.

This study does provide information relevant to clinical practice. Career development programs can be developed to assist all students with the process of choosing a major and subsequent career. Programs that address issues unique to minorities and men might be of added benefit as this study suggests they have greater difficulty with regard to career indecision and negative career thoughts compared to non-minority students and women, respectively. Programs could come in different forms such as workshops provided through a university's counseling services, or through academic departments in career and life planning courses or "university experience" types of courses. Semester-long career development courses could also be of benefit for students who need more intensive assistance. Individual career counseling is yet another format which could be utilized. Based on the findings in this study, programs for minority students could be especially helpful.

Although significant group differences were not found between athletes and non-athletes, results from the race post-hoc analyses have special implications for working with athlete groups. Significant group differences were found between white and non-white students on career decidedness and negative career thoughts. In this study, 35% of the athlete sample were racial/ethnic minorities. Specifically, 32% were African-American. Therefore, even though significant differences were not found between athletes and non-athletes on measures of career indecision and negative career thinking, a significant number of college athletes were minorities, with the large majority being African-American. Considering the significant differences between white and non-white students on career indecision and external conflict, the argument could be made that minority college athletes could benefit from career development programs, and especially programs that can help them resolve career-related external conflicts and their overall indecision.

Also, it is important to note that 37% were of the upper class athletes in this sample were racial/ethnic minorities. More specifically, 44% of the upperclass, male athletes in this sample were racial/ethnic minorities. This study did find that male, upperclass minority students reported higher levels of career indecision and negative career thinking than non-minority students. Therefore, programs that target this population might actually be beneficial to student athletes.

One-third of the athlete respondents perceived themselves as having favorable opportunities to play professional athletics in the future. The reality is that there is a small chance (typically 3-8%; Edwards, 1986; Remer et al., 1978) of the athletes in this study who will playing professionally. The number who will play professionally depends

not only on factors such as the school and the strength of their athletic programs, but also the type of sport. Across all collegiate athletic programs, some of the athletes will elevate to the professional ranks while most will not. It is hypothesized that the few players who go on to play professionally are heavily invested in training and athletic preparation, and thus would have little immediate interest in pursing other careers. Conversely, there are many athletes—approximately two-thirds in this sample—who will not go on to play professional athletics and know this is their reality. It is hypothesized that these athletes are more likely not to rely on playing professional athletics for a career and move through a more typical career development progression.

As discussed, at best, 10% (Edwards, 1986; Remer et al., 1978) of the athletes in this sample could play professional athletes; however, approximately 33% rated their likelihood of playing professionally as being "likely" or "highly likely." This leaves approximately 23% of the athlete population setting themselves up for a career in professional athletics that will probably to never come to fruition, thus potentially leaving them as upperclass students or even graduates without a "gameplan" for their life post-athletics. Targeting this group for future career development programs for college student athletes could be especially beneficial as they are at-risk students for career difficulties. However, several considerations must be kept in mind. First, the time of college athletes is limited and adding more to an already busy schedule may be difficult. Second, predicting athletic success of athletes is difficult which makes targeting students who would benefit from programs an inexact science. Further, not all athletes who could benefit from additional assistance want help but instead endorse a "don't care" attitude

concerning academics. Finally, not all student athletes are in need of career development interventions.

There are several ways future research in this area can continue to explore the career development process of college athletes. Considering that race became an important factor in this study, future research efforts should consider race as a main variable in studies exploring differences among college athletes and non-athletes.

Gender and race were important variables in this study. While the findings of this study can contribute to other research examining the effects of these two variables on factors such as career indecision and negative career thinking, their influence remains uncertain as differing findings have been reported. Overall, the effects of gender and race on the career development process have received little attention (Hackett & Lent, 1992), and warrant further investigation.

Further research related to negative career thoughts and career indecision could be conducted with larger samples to explore academic class, demographic characteristics, and athlete characteristics in more detail. First, analyses could be conducted across each academic year (e.g., freshman, sophomore, junior, senior) instead of underclass and upperclass. This would allow researchers and practitioners to more closely identify the academic periods when career programs might be most meaningful, timely, and effective. Second, race should be considered as a primary variable in future studies. Third, a larger sample would provide enough data to examine how variables such as college athletes' starting status, and amount of playing time might affect the career decision making process, specifically career indecision and negative career thoughts. Finally, analyses

could be conducted across the different athletic teams. For example, baseball players as a group could be compared to football players as a group, etc.

The primary analyses of this study did not find athletic status to have an effect on measures of career indecision and negative career thinking; however, numerous other studies (Blann, 1985; Kennedy & Dimick, 1987; Remer et al., 1978; Shahnasarian, 1992; Sowa & Gressard, 1983) indicate that the process of choosing a major and career is exceptionally difficult for some college athletes. The fact that many universities have implemented career programs for their student athletes also indicates that at least some athletes have unique needs in this area. Qualitative data from retrospective studies of athletes who were major figures during their college careers but whose skills were not at the professional level might provide relevant information pertaining to their own unique career development issues.

Career development interventions might prove to be more effective if a systemic approach is taken. This includes starting as early as high school before athletes foreclose on career options other than athletes. The involvement of coaches and parents might provide additional support and guidance. Establishing mentors and role models outside of athletics could give athletes influential figures who could help them balance their athletic and non-athletic lives. These suggestions might be especially beneficial for those who are first generation college students.

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Appendix A

Informed Consent Form

You are invited to participate in a study exploring career-decision making in college students. **Participation in this study involves the completion of three questionnaires which should take no longer than 20 minutes.**

Possible benefits of participating in this study include increasing understanding of how people make career decisions. There are no foreseeable risks of participating in this study. However, some of the questions do ask about your own career decisions; this may be viewed by some participants as being of a sensitive nature. The information from this study will assist in the understanding of career development of college students.

Participation in this study is completely voluntary. If you choose to participate, please complete the three questionnaires and place them inside the envelope which has been provided for you. There is no penalty for not participating and you have the right to withdraw your consent and participation in this study at any time without penalty by contacting the person administering the questionnaires.

All information collected for this study is strictly confidential. No individuals will be identified. Surveys will be tracked by numbers only and no identifying information will be collected. The informed consent form will be separated from the completed questionnaires to ensure your identity remains confidential and cannot be traced.

Your participation in this study is greatly appreciated. If you have any questions concerning this study, please feel free to contact Rick Van Haveren at (405) 743-8240. You may also contact Gay Clarkson, IRB Executive Secretary, 305 Whitehurst, Oklahoma State University, Stillwater, OK 74078, (405) 744-5700.

"I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me."

Date: _____ Signature of Participant: _____

Appendix B

Athlete Script

You are being asked to participate in a study looking at career development issues as they related to college students. Participation in this study is voluntary. If you do decide to participate, you will be given a packet of materials which contains several questionnaires. Participation in this study will take approximately 15-25 minutes of your time, and you may withdraw from the study at any time. Your responses will remain confidential. Also, your name will not be identified in any way with your responses so you will remain anonymous. For agreeing to participate, you will be offered your choice of a candy bar. Again, participation in this study is voluntary, but any effort to participate would be greatly appreciated.

Appendix C

Non-athlete Script

You are being asked to participate in a study looking at career development issues as they related to college students. Participation in this study is voluntary. If you do decide to participate, you will be given a packet of materials which contains several questionnaires. Participation in this study will take approximately 15-25 minutes of your time, and you may withdraw from the study at any time. Your responses will remain confidential. Also, your name will not be identified in any way with your responses so you will remain anonymous. For agreeing to participate, you will be given extra credit by your instructor. Again, participation in this study is voluntary, but any effort to participate would be greatly appreciated.

Appendix D

Directions: Please answer each question by filling in the blank, checking the blank, or circling the number that best describes you.

1. Age _____ 2. Gender: Male_____ Female_____

3. What is your racial/ethnic identify (check all that apply):
   - _____a) African-American/Black
   - _____b) American Indian/Native American
   - _____c) Asian/Asian American
   - _____d) Caucasian/White
   - _____e) Hispanic/Latino(a)
   - _____f) Other (please explain) _____

4. What is your family's current annual income (check one)?
   - _____a) Under $10,000
   - _____b) $10,001-$15,000
   - _____c) $15,001-$20,000
   - _____d) $20,001-$25,000
   - _____e) $25,001-$30,000
   - _____f) $30,001-$40,000
   - _____g) $40,001-$50,000
   - _____h) $50,001-$60,000
   - _____i) $60,001-$70,000
   - _____j) $70,001-$80,000
   - _____k) $80,001-$90,000
   - _____l) $90,001 or more per year

5. What year are you in college (check one)?
   - _____ a) Freshman (fewer than 28 semester credit hours passed)
   - _____ b) Sophomore (28 to 59 semester credit hours passed)
   - _____ c) Junior (60-93 semester credit hours passed)
   - _____ d) Senior (94 or more semester credit hours passed)

6. What is your college major? _____

7. What do you hope to do for work when you finish college?
_____

8. Are you an athlete in an OSU sport? _____ yes _____ no (if yes, go on to questions 9 and 10)
   If yes, identify your primary sport:_____
   List other sports in which you participate:_____

9. What is the likelihood that you will play professional athletics?

1	2	3	4	5
Very Likely				Very Unlikely

10. What is the level of commitment to your sport?

1	2	3	4	5
Highly Committed				Not Committed

Appendix E

To all participants:

We thank you for completing questionnaires for this study looking at career decision making in college students. Sometimes when people participate in research studies, this become aware of their own feelings and experiences that they may want to discuss with others, including counseling professionals. A list of resources has been provided for you in case you become aware of your interest in seeking assistance to discuss your thoughts, feelings, or behaviors. Please feel free to contact the primary researcher of this study: Rick Van Haveren, M. S. Ed., at (405) 743-8240. Your participation is greatly appreciated.

Resource List

This is a list of some centers which provide counseling services to students in the community.

Psychological Services Center
118 North Murray Hall
Oklahoma State University
Stillwater, OK 74078
(405) 744-5975

Personal Counseling Services-East
310 Student Union
Oklahoma State University
Stillwater, OK 74078
(405) 744-5472

Personal Counseling Services-West
002 Student Health Center
Oklahoma State University
Stillwater, OK 74078
(405) 744-7007

Multicultural Development and Assessment Center
320 Student Union
Oklahoma State University
Stillwater, OK 74078
(405) 744-5481

International Student Services
316 Student Union
Oklahoma State University
Stillwater, OK 74078
(405) 744-5459

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: February 25, 1998 **IRB #: ED-98-081**

Proposal Title: LEVELS OF CAREER DECIDEDNESS AND NEGATIVE CAREER THINKING PATTERNS BY ATHLETIC STATUS, GENDER, AND ACADEMIC CLASS

Principal Investigator(s): Carrie Winterowd, Richard Van Haveren

Reviewed and Processed as: Expedited

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

==========

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Signature: _____ Date: March 19, 1998

Chair of Institutional Review Board

cc: Richard Van Haveren

VITA

Richard A. Van Haveren

Candidate for the Degree of

Doctor of Philosophy

Dissertation: LEVELS OF CAREER DECIDEDNESS AND NEGATIVE CAREER THINKING BY ATHLETIC STATUS, GENDER, AND ACADEMIC CLASS

Major Field: Applied Behavioral Studies

Biographical:

Education: Graduated from Sheboygan South High School, Sheboygan, Wisconsin in May 1989; received Bachelor of Science degree in Psychology from Carroll College, Waukesha, Wisconsin in May 1993; received Master's of Science in Education in Counseling Psychology from the University of Miami, Coral Gables, Florida, in May 1995. Completed the requirements for the Doctor of Philosophy degree with a major in Counseling Psychology at Oklahoma State University in July, 1999.

Experience: Employed by Oklahoma State University as teaching assistant and as a practicum student, Oklahoma State University, 1995 to 1998; Employed by Kansas State University as a pre-doctoral intern, University Counseling Services, Kansas State University, 1998 to present.

Professional Memberships: American Psychological Association, American Psychological Association of Graduate Students, American Psychological Association-Division 13, Consulting Psychology