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Recruiting for Mental Toughness: A Qualitative examination of Division I Coaches Perspectives when Evaluating Prospective Student-Athletes

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**RECRUITING FOR MENTAL TOUGHNESS: A QUALITATIVE
EXAMINATION OF DIVISION I COACHES PERSPECTIVES WHEN
EVALUATING PROSPECTIVE STUDENT-ATHLETES**

A Masters Thesis presented to the Faculty of the
Graduate Program in Exercise and Sport Sciences
Ithaca College

In partial fulfillment of the requirements for the degree
Master of Science

By
Sydney A. Masters
November 2017

**Ithaca College
School of Health Sciences and Human Performance
Ithaca, New York**

CERTIFICATE OF APPROVAL

MASTER OF SCIENCE THESIS

**This is to certify that the Thesis of
Sydney A. Masters**

**submitted in partial fulfillment of the requirements for the
degree of Master of Science in the School of
Health Sciences and Human Performance
at Ithaca College has been approved.**

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DEDICATION

I dedicate this thesis to anyone in the graduate program who has ever had any doubts about their career path and especially their thesis. It is possible. In your own time, in your own way, you will finish and you will explore this field in a way no professor can teach you. More importantly, you will learn more about yourself than you would have thought.

ABSTRACT

Recruiting student-athletes with the most potential for high athletic performance is a crucial factor for athletic program success and revenue generation for collegiate athletic departments (Caro, 2012). Research suggests that coaches do consider ‘intangible factors’ while recruiting. However, it is unknown if coaches are recruiting for athletes who have mental toughness attributes. Athletes with high levels of mental toughness are more likely to see improved athletic performance which is desired by collegiate coaches (Sheard & Golby, 2007; Weissensteiner, Abernethy, Garrow & Gross, 2012). The purpose of this study was to conduct a phenomenological investigation into the psychological factors coaches consider during recruiting process. NCAA Division I coaches from the Northeast, Midwest and Southern US were contacted to request their participation. Six coaches (four male, two female) met the criteria for participation in the interview. Sports included: men’s basketball, men’s soccer, men’s and women’s volleyball, baseball, and field hockey. Interviews, ranged from 27-55 minutes in length. They were transcribed verbatim and coded into respective themes. The final thematic structure (and sub-themes) of indicators that coaches considered during the recruiting process consisted of: The Recruit as a Person (*“What’s the kind gonna be like when he comes away from home?”*, *Integrity, Work ethic*), Recruit’s Interactions with Others (*Observable interactions with teammates and coaches, Observable interactions with parents, Gaining information from outside sources*) Desired Competition Behaviors (*Recruit’s on field behaviors, Demonstration of psychological skill use*) and Fit with Program. Overall, the findings suggest the need for the sport psychology field to continue to develop mental toughness awareness in coaches.

TABLE OF CONTENT

ACKNOWLEDGEMENTS	iii
DEDICATION	iv
ABSTRACT	v
LIST OF TABLES	x
LIST OF FIGURES	xi
PROPOSAL	
INTRODUCTION	12
Statement of Purpose	15
Research Question	15
Scope of the Problem	15
Assumptions of the Study	16
Definition of Terms	16
Delimitations of the Study	16
Limitations of the Study	17
REVIEW OF LITERATURE	18
Mental Toughness	18
Mental Toughness Characteristics	18
Sport Specific Mental Toughness	22
Measures of Mental Toughness	26
The Mental Toughness Questionnaire-48 (MTQ-48)	26
The Sports Mental Toughness Questionnaire (SMTQ)	27
The Psychological Performance Inventory (PPI)	29

Observable Measures	30
How is Mental Toughness Developed?	31
Critical Incidents Outside of Sport	32
Critical Support Systems.....	34
Critical Environments	36
Student-Athlete Recruitment in the NCAA	39
Recruiting the Mentally Tough.....	42
Gap in Literature	46
METHODS	49
Design	49
Participants.....	49
Procedures.....	51
Prescreening and Interview Guide	51
Data Analysis	52
Trustworthiness.....	53
PROPOSAL REFERENCES	54
RESEARCH MANUSCRIPT	
INTRODUCTION	62
METHODS	67
Researcher Bias.....	67
Participants.....	67
Procedures	68
Measures and Interview Guide	69

Recruitment Questionnaire	69
Interview Guide	70
Data Analysis	70
Trustworthiness.....	71
RESULTS	72
Theme 1: Recruit as a Person.....	73
Sub-theme 1: “What’s the kind gonna be like when he comes away from home?”	74
Sub-theme 2: Integrity	75
Sub-theme 3: Work Ethic.....	75
Theme 2: Recruit’s Interactions with Others	76
Sub-theme 1: Observable Interactions with Teammates and Coaches	76
Sub-theme 2: Observable Interaction with Parents.....	77
Sub-theme 3: Gaining Information from Outside Sources	78
Theme 3: Desired Competition Behaviors.....	79
Sub-theme 1: Recruit’s On Field Behaviors	79
Sub-theme 2: Demonstration of Psychological Skills Use	80
Theme 4: Fit With Program	82
DISCUSSION	84
Implications of Research Findings.....	89
Limitations	92
MANUSCRIPT REFERENCES.....	93
APPENDICES	99

A. COMPILATION OF MENTAL TOUGHNESS STUDIES	99
B. TEAR OFF COVER SHEET FOR RECRUITMENT QUESTIONNAIRE	102
C. INTERVIEW RECRUITMENT COVERSHEET	103
D. INFORMED CONSENT FORM FOR PARTICIPANTS' INTERVIEW	104
E. RECRUITMENT QUESTIONNAIRE	106
F. INTERVIEW GUIDE	108
G. REFLEXIVITY STATEMENT	109
H. THEMES, SUB-THEMES AND INITIAL CODING	111

LIST OF TABLES

Manuscript Table

1. Participant Demographics.....	67
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LIST OF FIGURES

Manuscript Figure

1. Visual Depiction of Emergent Themes72

CHAPTER ONE

PROPOSAL

INTRODUCTION

Mental toughness is typically described as having confidence and the ability to cope (Butt, Weinberg & Culp, 2010; Jones, Hanton, & Connaughton, 2002; Jones, Hanton, & Connaughton, 2007) and has been studied for many years (e.g., Gould, Hodge, Peterson, & Petlichkoff, 1987). Mental toughness may also include the characteristics of thriving under pressure of competition, pushing back physical and emotional pain (Jones et al., 2002); resiliency and the ability to persevere when adversity is present (Middleton, Marsh, Martin, Richards & Perry, 2004), the ability to push through obstacles in your path, and having self-awareness of negative thoughts and feelings (Jones et al., 2007). However, for an athlete to be mentally tough, they most likely do not have to possess all of these qualities (Coulter, Mallett, & Gucciardi, 2010).

In elite sport, mental toughness levels are positively correlated with athletic performance (Sheard & Golby, 2007; Weissensteiner, Abernethy, Garrow, & Gross, 2012). Thus, mental toughness is a desirable quality in athletes, particularly in collegiate athletics where coaches are under extreme pressure to win. Collegiate athletics generate millions of dollars of revenue for universities and colleges (Deloitte & Touche, 2014). The more revenue generated, the more money there is for new facilities and equipment, which attract more high quality potential student-athletes, and the better notoriety for the team and the university. Some universities spend more than a million dollars for recruitment in all sports (Sander, 2008). Consequently, the ability to identify and recruit mentally tough athletes may be vital component to program success.

There are several valid measures of mental toughness, such as the MTQ-48 (Clough, Earle, & Sewell, 2002) or the SMTQ (Sheard, Golby, & van Wersch, 2009). However, it is impractical, due to lack of training and potential misuse of information, for coaches to administer these questionnaires during the athlete selection and recruitment process. Furthermore, these measures are not sole predictors of sports performance (Clough et al., 2002; Sheard et al., 2009). In reality, identifying mental toughness in a potential recruit is more likely to be based off of perception and personal preference of coaches. Some coaches may value the mental toughness characteristics of resiliency while others may look for higher confidence levels. Accordingly, coaches must be able to identify their desired characteristics of mental toughness from observing an athlete; talking to an athlete, coach, or relative; and, researching an athlete's history and background.

There are three areas in a person's life where mental toughness can be developed which provide valuable avenues for coaches to explore when recruiting an athlete. Critical incidents that happen outside of sport, such as the environment where a child lives (e.g., their upbringing), family dynamics (e.g., a single parent household), relocation, parental issues, bereavement, or having school-related difficulties may positively shape an athlete's mental toughness (Bull, Shambrook, James, & Brooks, 2005; Connaughton, Wadey, Hanton, & Jones, 2008; Thelwell, Such, Weston, Such, & Greenlees, 2010; Van Yperen, 2009). The support systems an athlete has, such as coaches, teammates, competitors, and sport psychology professionals, may also assist in the development of mental toughness (Connaughton et al., 2008). Additionally, another factor is the athlete's training environment; environments where coaches create rapport

built through mutual trust and respect have positive effects on building mental toughness in athletes (Thelwell et al., 2010). Athletes that are exposed to adverse conditions, who experience discomfort, have their limits tested, and who are challenged to learn to cope within these situations, may develop the characteristics that embody mental toughness (Middleton et al., 2004).

In addition to recruiting mentally tough athletes from a sports performance perspective, coaches may want to look for athletes who are mentally tough so that the athlete is more likely to succeed academically. The transition from high school to freshman year in college is stressful as athletes adjust to an unfamiliar environment with new workloads and demands. In the National Collegiate Athletics Association (NCAA) Division I, specifically, games are played at a faster pace, there are higher athletic demands, and therefore there is a need to balance time between school and athletics. To be successful, the athlete needs coping mechanisms and confidence to push through adversity, both common components of mental toughness. If freshman collegiate athletes came into college with higher levels of mental toughness, it is possible it would allow them to play to their athletic potential immediately and maintain a high academic standard because they have the adequate skills to handle those situations. This asset would also allow coaches to decrease recruiting errors for the potential athletes that would have a more difficult transition than others.

However, there is limited literature on how to successfully recruit mentally tough athletes. There is a plethora of literature suggesting mental toughness encompasses confidence, the ability to cope, and the ability to focus (Jones et al., 2002; Jones et al., 2007). Other literature finds that the ability to bounce back and find motivation to push

through adversity are both desirable characteristics of athletes by coaches (Middleton et al., 2004). Division I coaches may purposefully recruit mentally tough athletes; however, there is no evidence to support such hypothesis. Therefore, there is a need to investigate and closely consider the type of relationship mental toughness has in a coach's recruiting process.

Statement of Purpose

The purpose of this study is to examine NCAA Division I coaches' perceptions of recruitment of mentally tough student-athletes.

Research Question

What psychological factors do coaches describe looking for in the recruiting process?

Scope of the Problem

Top teams in the NCAA need to stay relevant and contend for national championships. To achieve this goal, they recruit the best athletes year after year. Coaches typically want 'mentally tough' athletes because the characteristics associated with mental toughness allow athletes to thrive, overcome situations, and produce favorable outcomes for their teams. It is believed that as levels of mental toughness increase, so does performance. Within the transition from high school to college, performance may drop due to lack of coping mechanisms and inability to handle new stressors. If college coaches are recruiting for mental toughness, an athlete's first year's performance may not be as effected by these outside stressors. However, it is unknown if coaches are trying to recruit mentally tough athletes or athletes with mental toughness attributes out of high school.

Assumptions of the Study

For the purpose of this study, the following assumptions will be made at the start of the investigation:

1. The sample of coaches are an accurate representation of Division I athletics and recruitment practices.
2. Coaches may know what mental toughness is and have an idea of how they might assess mental toughness in their potential athletes.
3. Coaches will accurately and honestly describe their own experiences recruiting for their university's team.

Definition of Terms

The following terms are operationally defined for the purpose of this investigation:

1. Characteristic: a feature or quality belonging typically to a person, place, or thing and serving to identify it.
2. Intangible: not able to be touched or grasped; not having physical presence.
3. Mental Toughness: having belief in one's own abilities, the ability to cope with the unpredictability of sport, the ability to set and accomplish goals, high motivation even when doing trivial physical tasks, and ability to switch focus on and off when necessary (Butt et al., 2010; Clough et al., 2002; Fourie & Potgieter, 2001; Jones et al., 2002; Jones et al., 2007; Middleton et al., 2004).

Delimitations of the Study

The delimitations of this study are:

1. Only NCAA Division I coaches will be interviewed for this study.

2. Interviews will only be conducted with coaches who have had a minimum of two years working as the primary recruiter for a NCAA Division I institution.
3. Convenience sampling will be used to conduct this study.

Limitations of the Study

The limitations of this study are:

1. Findings only apply to the specific population studied, (i.e., NCAA Division I coaches).
2. Coaches may not be completely honest with their recruiting practices in fear of 'secrets' being revealed.
3. The use of different sport coaches could make the sample less homogeneous.

CHAPTER 2
PROPOSAL
REVIEW OF LITERATURE

This literature review will outline the background of mental toughness: what it consists of, what it is defined as, how it is measured, and how mental toughness is developed. The review will then explore the necessity to recruit top student-athletes, especially mentally tough athletes, and present a gap in the literature. This gap will illustrate the need for the proposed research to be conducted.

Mental Toughness

Mental toughness was identified as one of the most crucial psychological skills to have in order to be successful as a competitive wrestler in a 1987 survey of 101 intercollegiate coaches from all three National Collegiate Athletic Association (NCAA) Divisions (Gould et al., 1987). The majority of coaches (82%) identified mental toughness to be the top characteristic that assisted in wrestlers' success. The researchers identified that coaches who were Team USA certified and had more coaching experience versus coaches who were non-certified, believed mental toughness was a malleable variable. This research led to the acknowledgement that mental toughness could be taught or enhanced and may have more to do with winning than some physical attributes, such as speed and power (Williams, 1998). After Gould and colleagues (1987) published their findings, mental toughness became of larger interest to researchers in sport. As interest grew, the emphasis of the research shifted to the identification of characteristics that could encompass the concept of mental toughness.

Mental Toughness Characteristics

Informal inquiries to sport enthusiasts, when asked to describe mental toughness, can easily use examples (execution of plays, incredible tackles, coming back from a deficit) or describe situations, rather than provide an actual definition. In the pursuit of what actually defines mental toughness, many researchers found a variety of characteristics and different definitions of mental toughness. Therefore, a comprehensive list of each study's participants, characteristics or attributes, and definitions are included in Appendix A for reference. The studies contained a variety of athletes in different sports and coaches from different levels of play. An examination of the most popular studies on mental toughness leads to no mutually agreed upon definition but rather various themes when looking across a multitude of sports.

The most frequently found characteristics related to mental toughness were self-belief and the ability to cope (Butt et al., 2010; Clough et al., 2002; Fourie & Potgieter, 2001; Jones et al., 2002; Jones et al., 2007; Middleton et al., 2004). Six of these studies have demonstrated that coping can help by being able to handle distractors in or out of the athletic arena, handle adversity on the field, react to situations, keep composure, and be able to adapt (Butt et al., 2010; Clough et al., 2002; Fourie & Potgieter, 2001; Jones et al., 2002; Jones et al., 2007; Middleton et al., 2004). Coping is crucial especially because of the unpredictability and ambiguity associated with sports. The higher an athlete's ability to cope, the better the athlete can perform.

Athletes that have high levels of motivation, goal-setting skills, and good focus have been considered to have characteristics of the mentally tough (Butt et al., 2010; Fourie & Potgieter, 2001; Jones et al., 2002; Jones et al., 2007; Middleton et al., 2004).

Motivation was presented as determination, desire, and using failure to fuel future successes. Setting goals for both practice and competition, and being able to stay focused on task, and being able to switch focal points during competition were also reported in the research (Butt et al., 2010; Fourie & Potgieter, 2001; Jones et al., 2002; Jones et al., 2007; Middleton et al., 2004). Though these themes are not as common as confidence and coping, coaches and athletes have identified them as contributors to mental toughness and, as a result, they are attributes that coaches could be seeking while recruiting.

Having a tough attitude or a tough mindset is another important attribute to mental toughness. This theme was described as mental conditioning, psychological hardiness, and using all aspects of training and competition to your advantage (Fourie & Potgieter, 2001; Jones et al., 2007). Clough and colleagues (2002) described tough attitude/mindset as a component of commitment or attitude towards training. Middleton and colleagues (2004) and Bull and colleagues (2010) found that staying positive in the face of adversity and having a positive attitude were key in having a tough mindset.

Fourie and Potgieter (2001) and Butt and colleagues (2010) found that for an athlete to be mentally tough, a high level of physical conditioning and the ability to push beyond their physical limits was needed. Other investigations have examined component associated with relationships to be a predictor of mental toughness. For example, team unity (Fourie & Potgieter, 2001) was related to respect between players, building team cohesion, having relationship skills, and doing the right thing for the team (Butt et al., 2010) as part of an athlete's mental toughness. These qualities may be important to team chemistry; which coaches may keep in mind when recruiting potential student-athletes.

The theme of having and maintaining control was also found to be associated mentally tough athletes. Clough and colleagues (2002) described control as athlete's reaction, while Jones and colleagues (2002) stated it was the regaining psychological control after unexpected events. Later in the research, Jones and colleagues (2007) and Butt and colleagues (2010) found that having self-control and not being controlled by others as essential components of mental toughness. Keeping a cool head, even under pressure, may be a desirable characteristic for coaches to look for in potential student-athletes.

Jones and colleagues (2007) and and colleagues (2010) found that being able to bounce back from mistakes or setbacks in performances (Jones et al., 2002) and being able to make decisions under pressure (Fourie & Potgieter, 2001) allow for an athlete to be more mentally tough. Along with bouncing back from mistakes, competitiveness and personal values (religious convictions, ethics, and patience) were also found to be important when investigating the components of mental toughness (Fourie & Potgieter, 200; Jones et al., 2007). The last theme reported in two studies were enjoyment or love for the game as desirable attributes to be considered mentally tough (Butt et al. 2010; Jones et al., 2007).

The themes previously mentioned were reported by at least two studies; however, there were many attributes that were only present in one specific study. It is unknown whether it was the variation in the populations investigated that led to these deviations. For example, Fourie and Potgieter (2001) discovered that an athlete's ability to prepare (balanced preparation and visualization) and self-sacrifice are two qualities necessary for an athlete to be considered mentally tough. Jones and colleagues (2002) found thriving

under pressure of competition to be an important factor of mental toughness as well as having the ability to push back the boundaries of physical and emotional pain in order to maintain technique and effectiveness under distress (Jones et al., 2002). Middleton and colleagues (2004) found resiliency and the ability to persevere when adversity was present as a pertinent element of mentally toughness. Jones and colleagues (2007) indicated that mental toughness means having the ability to push through obstacles in your path, to thrive on opportunities to beat others in training, to know when to celebrate success then move on to the next challenge, to know how to rationally handle success, and to have self-awareness of negative thoughts and feelings disturbing performance. Butt and colleagues (2010) reported that having a higher work ethic, stepping up under pressure, performing roles under pressure, and having sport intelligence or anticipation skills by reading the game, to be desirable characteristics of mental toughness. These characteristics were specific to the studies and do not fit within the themes mentioned earlier on.

From athletes and coaches, the description of mental toughness characteristics was not truly identical, though there were overlapping themes. There may be characteristics unique to a certain sport population but it may also be the difference of perceptions as to what mental toughness is in elite athletics. It is important to investigate what mental toughness means to a similar population, so best practices for developing mental toughness in those arenas can be developed.

Sport-Specific Mental Toughness

Sport-specific mental toughness is important to the literature because one may deduces if there are similar characteristics of mental toughness according to sport. In the

first study examined, Driska, Kamphoff, and Armentrout (2012) interviewed 13 elite male and female swimming coaches. The data produced was cross referenced with Jones and colleagues (2007) to deductively compare the coaches' responses. The results were consistent, matching all characteristics, with the exception of two subcomponents that were pertinent to only the mental toughness of NCAA elite swimmers. Researchers included coachability (under attitude/mindset) and retaining psychological control on poor training days (under training) to be unique to this population of athletes. However, being able to maintain emotional control has been found in other studies closely related to situational sport performance, whether it is in practice or competition (Clough et al., 2002; Jones et al., 2002, 2007).

Thelwell, Weston, and Greenlees (2005) investigated mental toughness in 43 professional male soccer players. The participants agreed with the previously created definition, which was the same as Jones and colleagues (2002) definition; however, the wording was changed slightly from "generally cope better than your opponent" to "always cope better than your opponent" (Thelwell, et al., 2005; p. 328). They ranked the attributes of mental toughness in order of importance. The ranking of attributes aligned with Jones and colleagues (2002), rating self-belief to be the most important and enjoying the pressure associated with performance as the least important. A few characteristics not found in other studies (only found in one study) were the need for positivity, 'presence that affects opponents,' and knowing what it takes to 'grind out of a situation'. The differences between Driska and colleagues (2012) and Thelwell and colleagues (2005) provides evidence that some aspects of mental toughness may be more important in certain sports than others.

Gucciardi, Gordon, and Dimmock (2008) also examined soccer coaches' perceptions of mental toughness. Using a personal construct theory approach to interview eleven male coaches from Australia, the participants highlighted values, attitudes, behaviors, and emotions as key facets of mental toughness. A unique feature of this study was that collectively the participants agreed mental toughness was desired in all situations, difficult or easy (i.e., not only seen in response to adversity but being able to maintain a high performance level when an athlete is performing well). Mental toughness was found by participants to be needed when events outside of sport were happening to be successful while performing e.g., rehabilitation process, disciplining one's self, having a child, or financial issues (Coulter, Mallett & Gucciardi, 2010). However, it seems having self-belief, the ability to control emotions on and off the field, being able to maintain and switch concentration/focus when needed, the ability to handle pressure (cope), and having a tough attitude or mindset were the most similar characteristics across the studies reviewed (Coulter et al., 2010; Fourie & Potgieter, 2001; Gucciardi et al., 2008; Jones et al., 2002; Middleton et al., 2004; Thelwell et al., 2005).

Coulter and colleagues (2010) investigated top ranked A-League Australian soccer players ($n = 6$), their coaches ($n = 4$) and their parents ($n = 5$). All three groups were asked to draw from their own experiences, situations they have seen, compare and contrast characteristics, and how they have seen athletes persevere to answer what makes up mental toughness. Researchers found similar cognitions (self-talk in a motivational mastery way, as a motivational drive function, and in general and specific cognitive functions) and behaviors (recovering from injuries, superior decision-making skills, leading by example, taking risks at crucial times during matches, and maintaining a

positive persona displayed to the team) present to other previous research (Gucciardi et al., 2008; Jones et al., 2002, 2007; Thelwell et al., 2005). Thirteen of the fourteen characteristics found in Coulter and colleagues (2010) (a list of all studies found in Appendix A), paralleled past research (for a review see Crust, 2007), except for the characteristics of having a winning mentality and desire. The literature review which shows that the majority of characteristics are similar but with slight variations, meaning when coaches are recruiting, they are looking for attributes that pertain to their specific sport.

Even in the same sport with a different population, there is no agreement on every single characteristic that would be needed to be mentally tough. Consequently, not all qualities may be necessary to have high levels of mental toughness (Coulter et al., 2010). Only six studies were found to have included coaches' perceptions of mental toughness. While we have some understanding of the perceptions of mental toughness, not as much is understood about how to triangulate the evidence to produce a working list of characteristics which is agreed upon. It is necessary to discuss and evaluate the measures that professionals or coaches may use to assess mental toughness in athletes.

Measures of Mental Toughness

The majority of mental toughness studies have been qualitative in nature in order to create an operational definition (Butt et al., 2010; Clough et al., 2002; Coulter et al., 2010; Driska et al., 2012; Fourie & Potgieter, 2001; Gucciardi et al., 2008; Jones et al., 2002; Jones et al., 2007; Middleton et al., 2004; Thelwell et al., 2005). For research purposes it is ideal to develop a way to associate a numerical value to a characteristic, as it is easier to objectively measure the concept. By having a basic measurement of mental

toughness, researchers can rate levels of mental toughness and begin to understand what modifications can lead to enhanced mental toughness. This section will review the most frequently used measures and highlight the lack of literature on measurable behaviors of mental toughness.

The Mental Toughness Questionnaire-48 (MTQ-48)

The most frequently used measure of mental toughness is the Mental Toughness Questionnaire-48 (Clough et al., 2002). The MTQ-48, a 48-item questionnaire, is based on the personality theory of hardiness. The measure contains 4 subscales: commitment (e.g., “I generally try to give 100 %”), emotional/life control (e.g., “I generally feel in control”), challenge (e.g., “I usually enjoy a challenge”), and confidence in own abilities (e.g., “I am generally confident in my own abilities”). Participants ($N = 600$) rated themselves on a five-point scale with anchor points from one to five, with one = strongly disagree to five = strongly agree; the higher the score indicating a more mentally tough individual. The initial investigation compared levels of mental toughness while doing a physical test, receiving negative or positive feedback. After the physical test participants had to complete a cognitive task. The more mentally tough an athlete was, the less feedback mattered in performance of the cognitive task but the opposite was true for an athlete with lower levels of mental toughness ($F(1, 599) = 4.36, p < 0.05$). The more negative feedback given, the worse the athlete performed on the cognitive test. Perry, Clough, Crust, Earle, and Nicholls (2013) studied the reliability of the MTQ-48. Researchers found that from the 8,207 participants (employees, athletes, and students) who completed the measure, the measure showed high support for the internal consistency ($\alpha = .78 - .85$) with all 6 factors except controlling emotion. They found the

best model of fit in the Akaike information criterion ($\chi^2(1065) = 19791.9$). While many studies have used this measure (Crust & Clough, 2005; Kaiseler, Polman & Nicholls, 2009; Nicholls, Polman, Levy & Backhouse 2009; Sheard & Golby, 2007), there is a need for rigorous retesting.

Researchers have speculated that hardiness and its relation to mental toughness is slim because confidence is the only subscale of the measure that is applicable to mental toughness. Gucciardi, Hanton, and Mallet (2012) believed the MTQ-48 is only measuring hardiness and has been the default measure of mental toughness without being questioned enough. They asked ($N = 686$) athletes from basketball, hockey, netball, and rugby from all playing levels and regular employees of a business to complete the questionnaire. They performed a confirmatory factorial analysis and found only 14 out of the 48 questions to be excellent on their loading factor, where the others were weak for both athletes ($\chi^2(942) = 2970.25, p < .001$) and employees ($\chi^2(1074) = 4928.95, p < .001$). In the researcher's literature review, they concluded the measure has concurrent validity but they were still hesitant to fully endorse the measure due to what they believe is an unstable internal structure of the measure. If the measure is incongruent with its theoretical model, more research should be done to differentiate the theories of hardiness and mental toughness.

The Sports Mental Toughness Questionnaire (SMTQ)

The Sports Mental Toughness Questionnaire (SMTQ) is another commonly used self-report measure created by Sheard, Golby and van Wersch (2009). The measure's approach is based on Clough and colleagues (2002) research. In Sheard and colleagues (2009) first study they interviewed volunteer athletes ($n_m = 427, n_f = 206$) from all skill

levels and sports, to create raw data themes. Researchers derived a list of 14 items. Next, they conducted an exploratory factor analysis and found three main factors: Confidence (“I have an unshakable confidence in my ability”), Constancy (“I get distracted easily and lose my concentration”) and Control (“I worry about performing poorly”), accounted for 40.7% of the variance in the data set providing evidence for general mental toughness; all factors were positive and statistically significant ($p < .01$).

In Sheard and colleagues’ (2009) second study, the authors tested their measure against the positive psychology theory. They recruited participants across multiple sports ($n_m = 351$, $n_f = 158$) and administered the SMTQ to the athletes. The SMTQ included a 4-point scale, with anchor points from one to four, one = not at all true to four = very true. A confirmatory factor analysis determined a good fit [$\chi^2(74, N = 509) = 182.56, p < .01$], and the indices indicated good support for the theoretical model. The three factor intercorrelations were positively significant and demonstrated acceptable internal consistency (confidence = .79, constancy = .76, control = .72). The SMTQ correlated with some positive psychology measures (Personal Views Survey III-R, Revised Life Orientation Test, Positive and Negative Affect), however, results showed a clear independence from positive psychology constructs and mental toughness. It is important to note, the SMTQ is one of the only measures of mental toughness that incorporate emotional and negative energy control (Sheard et al., 2009). The evidence has provided acceptable psychometrics, yet, this measure needs more support to make it a reliable and useful measure of mental toughness.

The Psychological Performance Inventory (PPI)

The Psychological Performance Inventory developed by Loehr (1986) is a 42-item, self-report measure, consisting of seven subscales (self-confidence, attention control, negative energy, positive energy, visual and imagery control, motivation, and attitude control). Of the subscales some directly relate to the characteristics of mental toughness in previous sections (self-confidence, motivation, and attitude). Though it does not specifically measure mental toughness, some researchers have used it to evaluate if an athlete is mentally tough. The measure consists of a five-point scale ranging from one to five, one = almost never to five = almost always. Of the the 42 items, 27 items were worded positively (“I believe in myself as a player”) and 15 items were worded negatively (“I get nervous or afraid in competition”). The PPI lacks conceptual support because at its core, there was no information on how items were developed or validity statistics.

This lack of conceptual support led Golby, Sheard, and van Wersch (2007) to test the PPI for factorial validity by using a principal components analysis. The analysis reduced the model to use six factors but there was still no support for Loehr’s hypothesized model. Golby and colleagues (2007) determined four factors that accounted for 55.7% of the variance of general mental toughness (determination, self-belief, positive cognitions, and visualization). The researchers concluded the PPI should not be used as a measure of mental toughness because it failed to represent factorial validity and other needed psychometric properties. They indicated saw the need to revise the PPI as an alternative measure (Psychological Performance Inventory- Alternative; PPI-A; Gucciardi, 2012).

The PPI-A is a 14-item self-report measure using the same Likert scale as the PPI; 12 of the items were worded positively and two were worded negatively. Scores range from 3 to 20 for subscales scores and 14-70 for overall mental toughness. Researchers found support for factorial validity ($\chi^2(71) = 141.55, p < .01$) but there is a limitation in the PPI-A validity interpretation because the same participant sample as the PPI was used. Gucciardi (2012) also found supportive evidence for the PPI-A but the internal reliability estimates for each subscale were below the recommended level of .70 in early stages of measure development. This author found support for convergent validity and good factorial validity. However, this measure still may not be adequate to determine levels of mental toughness because the subscales are not solely based on the mental toughness literature. Finding a reliable, quantitative measure to evaluate mental toughness still needs to be developed.

Observable Measures

Mental toughness has been assessed quantitatively in some studies, however Anderson (2011) suggested a sport specific behavior checklist might be a more appropriate identifier of mental toughness. This investigator stated, that in tennis, a measure of mental toughness could be comparing first number of serves when ahead and when behind. If the scores were similar, it could demonstrate a form of consistent performance or mental toughness (Gucciardi, Gordon, Dimmock, & Mallet, 2009). An observable measure for swimming could be a researcher tracking the times of an athlete's 100-meter freestyle over a year and calculating the intra-individual standard deviations for the athlete to see their consistency (Anderson, 2011). Although the theories have not been tested, researchers could determine a behavior checklist that measures mental

toughness potentially better than self-report measures. In general, to date research is demonstrating a missing link between the perception of mental toughness, self-report measures, and a lack of observable measures that coaches could use to recruit and evaluate potential athletes.

More investigation needs to be done to create an accurate and reliable measure of mental toughness. Currently, the literature shows self-report measures could be used for athletes to evaluate themselves, and the adaptation of the self-report measures for coaches to evaluate athlete's levels of mental toughness. However, there are no measures specifically designed only for a coach's evaluation. Coaches do not tend to use a form of mental toughness measurement or to feel comfortable using measures of this nature, though it could help them in the potential recruitment of athletes. For this reason, a majority of coaches measure mental toughness through their own observation. A more precise measure of mental toughness could assist in the ability to identify mentally tough athletes for Olympic Development Teams, college showcase teams, and college recruitment.

How is Mental Toughness Developed?

There may be a small genetic component to mental toughness (Horburgh, Schermer, Veslka, & Vernon, 2009). However, an important finding in the literature is that the attributes of mental toughness may not only be taught, but to a certain extent, enhanced, which allows mental toughness to be something every athlete is able to attain and every coach is able to refine (Thelwell, et al., 2010). Researchers have seen increases in mental toughness throughout college years and over seasons (Giacobbi, Roper, Whitney, & Butryn, 2002). Elite athletes advise younger athletes that if they want to

enhance their mental toughness they must train the psychological side of sports (Young & Pearce, 2010). The elite athletes suggested the best pathway to enhance their mental toughness was to develop routines, use visualization, adequately prepare for matches, use breathing techniques, and rigorously train while focusing on developing their skills (Young & Pearce, 2010). These interventions are heavily informed by well-established and researched theories. These characteristics can be manipulated not only to increase mental toughness but also an athlete's performance (Golby & Sheard, 2006).

Critical Incidents Outside of Sport

Critical incidents outside of sport can influence the development of mental toughness. Bull, Shambrook, James, and Brooks (2005) investigated and interviewed the top 15 English cricketers. These cricketers were perceived as the most mentally tough by 101 coaches. The researchers found environmental influences to be a relevant component of the development of mental toughness. Researchers uncovered the best way to foster mental toughness is for athletes to experience alternative and challenging environments. They believed mental toughness to be a combination of characteristics of the environment and the athlete's lessons learned from past experiences within that environment. More often than not, this process begins as an athlete is growing up (Bull et al., 2005).

Bull and colleagues (2005) investigated an athlete's childhood by asking what the athlete, coaches, and parents believed to have helped them gain their mental toughness. They found the environment in which a child lives could influence their mental toughness. Some coaches have stated certain types of adverse backgrounds may predispose athletes to be mentally tough. "The basic thing is looking at all these names here (the list) one thing that strikingly stands out is their upbringing. I would say they

were probably brought up from the school of hard knocks” (Bull et al., 2005; p. 219).

This statement shows that it may be significant to know where an athlete comes from and that there is a preference for those athletes brought up in harder living conditions or who have experienced hardship in their lives.

Understanding more of the athlete’s perspective of their own development of mental toughness could also provide insight to coaches while recruiting. Thelwell and colleagues (2010) studied elite female gymnasts from the United States and Great Britain. Gymnasts agreed mental toughness could be developed by external factors such as relocation, parental issues, bereavement, or having school related difficulties. An athlete’s family dynamic such as a single parent household or childhood, such as how they were raised, can have an effect on mental toughness levels. The authors noted siblings were a good facilitator of mental toughness because of rivalries that are created outside of sport (i.e., to gain attention) and inside sport when siblings share similar sport interests (Van Yperen, 2009). Familial factors seem to create impactful moments for athletes where mental toughness is built. Athletes felt negative experiences outside of sport were pertinent in creating mental toughness, as indicated:

“There are some situations that happened outside of sport which shouldn’t have happened. I did really well overcoming some difficult times at home, which helped me become mentally tougher as it increased my desire to escape from the life I was having outside of sport, which motivated me to become a better athlete.” (Connaughton et al., 2008, p. 87)

The events in an athlete’s life, in general, could be seen as negative but actually have a positive and powerful influence for mental toughness development.

Mental toughness develops in the environment in which a child grows up; it can give them an edge over their other counterparts (Gucciardi et al., 2009). There is a consensus that these childhood experiences nurture the development of these desirable characteristics of successful athletes. Going through struggles at a young age leads an athlete to cope better than others when faced with adversity. Within childhood, the variable of race was not found to be a factor that helps develop mental toughness except in the research done by Van Yperen (2009). This study was the only study where being of a non-white racial/ethnic identity was found to be an influencer of developing mental toughness. To date, there is a lack of literature on race and its influences of the development of mental toughness.

The benefit of having critical incidents in an athlete's life could lead athletes to be able to cope better with the adversity associated with becoming a student-athlete in college (Spieler, Czech, Joyner, Munkasy, Gentner, & Long, 2007) However, investigators do not conclude that it is necessary to experience a difficult childhood or a less than ideal family dynamic to develop mental toughness. If the 'ideal' background which fosters an athlete's mental toughness development is missing, there are other ways to develop mental toughness. Therefore, more efforts on behalf of the coaches or coaching staff may be necessary to enhance an athlete's potential mental toughness.

Critical Social Support Systems

Social support is viewed as a critical component in the development of mental toughness. Thelwell and colleagues (2010) found that sporting personnel in an athlete's life (coaches, teammates, competitors, and sport psychologists) can assist in the development of mental toughness. Coaches influence the development of mental

toughness by encouraging, motivating, and believing in their athletes. Mentally tough athletes also have a good support system from their teammates through healthy competition and encouragement (Connaughton et al., 2008). Outside competitors act as a system which develops mental toughness as they establish a rivalry, push one another to strive for success, and try to surpass each other's benchmarks (Butt et al., 2010; Connaughton et al., 2008). Thelwell and colleagues (2010) gymnasts stated that working with a sport psychologist helped develop their mental toughness. With individualized attention and support (Young & Pearce, 2010), the athletes were taught basic and advanced skills to help cope with anxiety, increase confidence, and find their appropriate mindset for competitions and training (Connaughton et al., 2008). The psychologists were able to guide mental toughness development through situations the athletes might encounter and to review and rationalize their thoughts and feelings effectively. Also, Connaughton and colleagues (2008) found coaches or sport psychologists could help with mental preparation by teaching imagery and pre-performance routines, setting process goals, and encouraging self-talk and self-belief (Young & Pearce, 2010). Young and Pearce (2010) found that coaches or sport performance consultants can also develop self-awareness skills, a strong work ethic, and a developmental mindset rather than just a results-based mindset. It may be productive for sport psychologists or consultants to work together with coaches to produce an environment in which athletes are learning mental skills individually and from different support systems.

Non-sport personnel, such as parents, siblings, and significant others, are seen as additional support systems. Gymnasts believed their parents positively pushed them, provided feedback, guidance, motivation, and unconditional love (Butt et al., 2010;

Connaughton et al., 2008; Giacobbi et al., 2002). Closely related to parental support were significant others or friends who provided motivation, social support, and belief in the athletes' abilities. However, professional male soccer players believed a lack of parental support helped develop mental toughness and gain respect from their managers (coaches) (Thelwell et al., 2005). For some athletes, there may be a need for different levels of support to help develop mental toughness. Recognizing the need for support in all levels of athletics may help create and maintain high levels of mental toughness. It would be naïve to believe a mentally tough person would not need someone to lean on in trying moments. However, overall, multiple exposures to events and situations will allow elite athletes to foster the needed key characteristics.

Critical Sport Environments

Practice and training are ideal environments in which to build mental toughness (Bull et al., 2005; Butt et al., 2010; Gucciardi et al., 2009). When coaches create an environment with rapport built through mutual trust and respect, a culture of hard work and discipline follows. Such environment allows athletes to be pushed beyond their comfort zones (Thelwell et al., 2010). Coaches should also create an open line of communication and intend to maintain the coach-athlete relationship over the long term to fully develop their athletes (Connaughton et al., 2008). During practices, coaches should create an autonomous environment by asking individual players or the team what they want to improve (Van Yperen, 2009). This approach is crucial for mental toughness development (Van Yperen, 2009). Thelwell and colleagues (2010) findings suggested coaches who have the ability to individualize training programs, use positive reinforcement, create a sense of purpose behind every practice, and teach mental skills,

created an environment where participants felt they were developing more mental toughness. Coaches who encourage mistakes to evoke the learning process while also encouraging athletes to use their own problem-solving skills are more likely to develop mental toughness among their athletes. (Bull et al., 2005; Gucciardi, 2009).

Coaches have the ability to create challenging situations in practice and to foster high expectations (Butt et al., 2010; Gucciardi et al., 2009; Thelwell et al., 2010). Butt and colleagues (2010) and Weinberg Butt, and Culp (2011) state both athletes and coaches believe highly competitive training environments illicit mental toughness. By exposing athletes to adverse conditions, being uncomfortable, testing their limits, having to learn to cope within these situations, coaches can heighten the characteristics that encompass mental toughness (Middleton et al., 2004). Van Yperen (2009) suggests coaches should challenge their athletes with psychological pressure by using distractions or adding consequences to create that sense of pressure. Instituting pressure training at the end of practices when athletes are tired is also a way coaches may enhance mental toughness. Weinberg and colleagues (2011) also state that coaches assist in the development of mental toughness by having their athletes watch someone who is more mentally tough lead by example, teach the mental toughness qualities, and help the athletes visualize their techniques to become more prepared for competition (Connaughton et al., 2008).

Following competition, coaches should facilitate a reflection with their athletes of what went well and what could be better while providing the athletes constructive feedback and appreciation for their hard work (Crust & Azadi, 2010). If a coach focuses too much on winning or a player's weaknesses, instead of the process of getting better, it

can hinder an athlete's mental toughness development (Van Yperen, 2009). Most importantly, coaches should understand and teach their athletes that mental toughness development is a long process that does not necessarily have an end (Connaughton et al., 2008; MacNamara, Button, & Collins, 2010). To note, Thelwell et al. (2005) found that elite soccer players attributed being sent on loan to a different club to play, playing with the senior squad for professional club soccer, being dropped from a team, or being selected for a team when not expecting it influences their levels of mental toughness because it challenged their comfortability in their environment.

Although mental toughness can be developed, in the United States talent development programs often overlook the psychological components involved in sports (Anshel & Lidor, 2012). Evidence suggests that in high-performance sport a relationship between mental toughness and performance does exist (Sheard & Golby, 2007; Weissensteiner, et al., 2012); specifically, when adversity is present (Middleton, et al., 2004; Newland, Newton, Finch, Harbke, & Podlog, 2013). As an athlete's mental toughness increases, so does the athlete's success (Golby & Sheard, 2006). If more youth and high school coaches were aware of the performance benefits of being a mentally tough athlete, it may be more attractive for youth coaches to build an environment or develop the characteristics that influence mental toughness. This change could lead to a performance increase in high school athletes.

Studies have also shown college coaches are interested in more intangible characteristics which produce more desirable student-athletes to recruit for a college athletic program (Flett, Gould, Paule, & Schneider, 2010). These student-athletes then could transition to college life and the demands of college athletics better. These

transitions are made difficult if a student-athlete does not have the ability to handle the stress and pressures or does not possess the coping mechanisms necessary to allow them to perform to the best of their ability. By recruiting mentally tough athletes, it is likely that coaches could see better outcomes from their first-year athletes and decrease the likelihood of recruiting athletes that may not be at their expected potential in the coach's opinion. However, it is necessary to first understand how important recruitment is to the success of university athletic teams.

Student-Athlete Recruitment in the NCAA

The United States' sport culture has a large following of dedicated fans. Specifically, in collegiate sports, fans can track athletes through countless websites as they are recruited by top Division I schools as young as the age of 12. Fans voices can be heard on message boards where they can comment on the prospective recruits and who they would like to see commit to their favorite universities. These sites are not only seen by fans but also college coaches and future student-athletes. The pressures of being a college coach (e.g., having a winning record, keeping alumni, boosters, and the fan base happy, contending for national championships) are heavily predicated on having the most talented athletes year after year commit to that coach's university. Coaches need to be successful and they do so by staying relevant (winning). Potential recruits do pay attention to team's records. It has been found that if a team is successful during a recruit's junior year of high school, the recruit's interest in attending that university increases (Langelett, 2003). This factor explains why the top 25 teams continuously recruit the best classes and consistently stay in the top 25 rankings of the NCAA, especially in football and men's basketball (Langelett, 2003).

If college teams consistently win and have a winning record, it can bring a prestige to the university which allows for increased selectivity in the admissions process. Winning can also increase donations to an athletic department from boosters or alumni and can provide free advertising for the university (Letawsky, Schneider, Pedersen, & Palmer, 2003; Zimbalist, 1999).

Every year, there is an increase in athletic spending. Through 2002-2007, two Big-Ten Universities nearly doubled their recruiting budgets to increase their athletics to compete with rival schools in their conference. Some universities are spending more than a million dollars on recruiting in all collegiate sports (Sander, 2008). Athletic departments act in this manner because they have observed the correlations between success on the field and university profitability (Caro, 2012). Caro (2012) found that the SEC (Southeastern Conference) led recruiting from 2004-2009 and had also captured the last five BCS (Bowl Championship Series) national championships. Approximately 63-80% of the winning percentages were because of recruiting successes. The evidence shows enormous gains when a university continually invests in their athletics recruiting budget.

Recruiting is not limited to the United States. Coaches seek physical talents in all corners of the world. The odds are high for an American Samoan male teenager to be recruited to the United States. In 2013, American Samoa produced seven FBS (Football Bowl Subdivision) recruits within a population of slightly over 55,000 people (Longhorn, 2013). Hardin, Trendafilova, Kistler, and Koo (2014) have mentioned Division I tennis 'non-residents' have been increasing through the past decade as noted in the NCAA Ethnicity report (NCAA, 2016). Researchers predict this trend will continue as the

pressure on coaches rises to keep recruiting the best athletes while coaches exhaust all resources to do so.

Fans, team devotees, and even coaches at some universities will find ways to increase their recruiting odds, whether through legal or illegal recruiting efforts or other methods (Smith, 2000). There has historically been an uneven amount of resources and not all teams could recruit evenly, with some universities dominating over others. The NCAA believed it was necessary to institute restrictions on recruiting (i.e., no contact before junior year but athletes can contact the coach, no gifts to sway potential recruits to commit to said school, use of prostitutes, etc.) to allow all universities to have a fair chance at recruiting talent. Because of these restrictions, athlete recruitment has become depersonalized. Texting, emails, and phone calls are not heavily monitored but personal interactions are. Due to the limited coach-athlete contact time and limited ability to build relationships with athletes, it has become difficult to understand what character an athlete has.

Few academic studies addressed what coaches look for when recruiting. Chris Bigelow, a former assistant women's volleyball coach at the University of California, was a top recruiter in her career and was interviewed about her recruiting methods (Brock, 2011). Coach Bigelow stated that it is important to know what a coach is looking for, the needs of the program, and the kinds of talents that the coach is interested in. She believes coaches need to pay attention to the athlete over an extended period of time because the better a coach knows the athlete and the more information they have the better a decision can be made in the recruitment process. She recruited for talent, things she believed she had no influence on because she believed skill could be taught.

Recruiting college athletes is a complex process with significant financial and time investments; it is important to understand for whom and for what characteristics you are recruiting. Bobby Knight, one of college basketball's most successful and innovative coaches, believes, 'mental toughness is to physical, as four is to one' (Pace, 2012). Bill Russell, a respected player and coach in the National Basketball Association (NBA), said 'Concentration and mental toughness are the margins of victory' (DeLeon, 2014, para 2).

Recruiting the Mentally Tough

Mental toughness is a mutually agreed upon desirable trait in college athletics as is recruiting potential 'superstar' athletes. However, even experienced coaches often overlook or are unexposed to the psychological component of recruiting (Stewart & Meyers, 2004). To date, there are limited studies that have investigated mental toughness and its role in recruiting college athletes. Weinberg and colleagues (2011) found in their study of NCAA Division I coaches that coaches tended to recruit athletes for their 'mental character' in addition to their physical skills. Through recruiting observations, coaches expressed looking for qualities such as intensity in practice, how hard-working they are, and having a 'game like attitude' as indicators of an athlete's potential mental toughness. Based on their study, mental toughness is recognized and considered to be important in the recruitment process of athletes by Division I coaches. If more insight into what characteristics or specific intangibles coaches desire in their athletes was available, it is likely that athletes could begin to enhance those characteristics.

Hardin and colleagues (2014) recognized that intangibles were a driving factor behind why Division I tennis coaches recruited international athletes. The first factor, 'intangibles' explained 44% of the variance of motives to recruit international student

athletes. Intangibles were described as personal characteristics: motivation, determination, and coachability. All of these factors could not be quantified because of the subjectivity of the observer, in this case, the coach. The real challenge lies in how coaches evaluate the intangibles since there is no clear standard. Furthermore, coaches can spend limited time with potential recruits making it more difficult to understand the athlete as a person. The intangible characteristics may be perceived as worth the long-term investment over the course of four years to develop a student-athlete. Intangibles can lead to an athlete's maximum development and allow for dominating performances when physical skills are virtually the same in elite athletics. While recruiting mentally tough athletes may be important, however, it does not dictate the entire decision of a coach who would want an athlete to play for their team (Langelett, 2003).

Kavekar and Ford (2010) interviewed the top 27 active coaches with the highest win records in Division I softball and asked them to rank the importance of a recruit's characteristics. They stated 'athletic' as the most important, then 'other' which was described as 'athleticism' and 'mental toughness', and the third was the athlete's 'attitude'. Coaches were then asked to identify the top three intangible characteristics that describe a top recruit: 33% of coaches said being a team player and having a strong work ethic, 15% stated character, values, athleticism, and talent, and only 11% believed hustle, hard work, mental toughness, drive, or determination. It is important to note that when the coaches were asked about the characteristics and intangibles, mental toughness did arise but so did other major themes that frequently emerge. Mental toughness may not be the most important characteristic but it is still highly desired.

The most conclusive study of recruiting intangibles is the work from Flett and colleagues (2010). They viewed mental toughness as an intangible characteristic which coaches sought in the recruitment process. They used the theories of mental toughness, positive youth development, life skills, and character development. Researchers interviewed three female and seven male Canadian coaches from the Canadian Interuniversity Sport (CIS) league. Participants coached a range of sports: soccer, basketball, hockey, track and field, volleyball, wrestling, and swimming. Researchers asked coaches if ‘intangibles’ were important to them in university sport. The researchers proposed three categories: *benefits of character and life skills* (coaches describing the benefits of strong intangibles; a worthy investment, developmental benefits, competitive success, important, and augment skills), *coaching beliefs* (coaches believe they can develop players intangibles or facilitate growth; coaches feel it as their duty to develop intangibles, they believe players need support, they believe academics to be vital to sport and life development), and *coaching motives* (coaches truly care about the athletes as people, coaches want to have a good reputation within local and sporting communities, they enjoy the challenge of trying to identify and nurture these soft-skills and want to be around ‘good’ people). The next question asked was, “What intangible attributes do coaches look for in athletes?” Coaches answered with social character, trustworthiness, maturity, positivity, challenge, work ethic, toughness and resilience, motivation, and having sport psychology skills. To the question, “Who and what do coaches look for in recruits?”, the coaches noted the athlete’s potential and motivation, fit within the program, academics, maturity, attitude, leadership abilities and coaches’ personal preference. Flett and colleagues (2010) proposed that a coach’s personal preference may

be a large proponent of why certain student-athletes' attributes are more desirable than others. However, recruiting a student-athlete is multidimensional.

Coaches stated they even look at the potential recruit's background, such as whether they came from a farming or working class, and gather information from the type of questions recruits ask (Graves, 2008). Kelly Graves (2008), a basketball coach at Gonzaga University at the time of interview (now coaching at the University of Oregon), was asked what he looks for in a women's basketball recruit. He stated it is much more than a box score. He looked for athletes who make sacrifices for the betterment of the team. He observed on-court behaviors such as: pouting when she or a teammate makes a bad play, hanging her head after a missed basket, encouraging teammates, helping others off the floor, arguing with officials, reacting to a bad call, or having fun. He also considers: On the bench, does she seclude herself? Does she accept encouragement, listen to coaches, and look people in the eye? Graves' comments aligned with Flett and colleagues (2010) findings that coaches want players with great character. Graves believes that with this character, teams can be developed to respect, care, and trust each other, producing a well-functioning team.

Flett and colleagues (2010) also asked the question, "How do coaches recruit the intangibles?" The researchers finding were similar to Spieler and colleagues (2007) where coaches stated a) they used their own perceived reliable information from multiple sources [youth coaches and teachers (Spieler et al., 2007)], b) developed a relationship and trust (face-to-face, meeting in a familiar place to the recruit, assessing their manners, how respectful they are, eye contact, confident tones), observed performance (between

plays, interaction with coach and teammates), and c) observed family dynamics [respect, child-parent relationship, overbearing parents (Spieler et al., 2007)].

Overall, researchers found that when coaches recruit potential athletes, the athletes' character and life skills were considered very important factors. It is important to note that coaches are looking for 'resilient athletes' with some sort of sport psychology skills which assists in development of mental toughness. One thing to note about Flett and colleagues (2010) research were his participants. They stated that the pressure from competitive Canadian sports might be more from local communities rather than national media and sponsors when compared to NCAA sports. Providing evidence that recruiting pressures may differ in the United States where there is a more national pressures in certain sports, especially at the Division I level compared to Canadian intercollegiate sports. Since US collegiate coaches have not been studied in relation to this topic, an investigation is necessary of Division I coaches recruiting mental toughness in an environment where the demands are higher and there is much more to lose than just a game.

In conclusion, few researchers investigated recruiting mentally tough athletes at the NCAA level. Overall, coaches heavily rely on characteristics and attributes of an athlete when assessing mental toughness. This behavior may be due to the fact that coaches can and should be able to develop physical skill more easily than characteristics they may perceive as being more difficult to change.

Gap in the Literature

Within the literature review there is a mutually agreed upon definition but no comprehensive list of characteristics that encompass mental toughness. There are

discrepancies between an athlete's assessment of their own mental toughness and the coach's assessment of their athlete's mental toughness (Cowden, Anshel & Fuller, 2014; Wieser & Thiel, 2014). Mental toughness is primarily based on personal preferences and perceptions coaches have of their potential athletes which aligns with previous researchers asking coaches to describe what mental toughness is to them.

As recruiting is one of the most important indicators of future team success (Caro, 2012), coaches should be seeking the most talented recruits to have consistent, successful performance. With evidence providing support that as mental toughness levels increase, so does an athlete's performance (Golby & Sheard, 2006; Sheard & Golby, 2007; Weissensteiner et al., 2012), it seems reasonable that a collegiate coach would want to intentionally recruit for characteristics related to mental toughness.

The topics of mental toughness and collegiate recruitment have been well researched; however, they have yet to be integrated together nor been a topic in the sport psychology literature. There is enough evidence to support that if youth coaches understood the performance benefits of creating a training environment and being a support system for their athletes, it can increase levels of mental toughness. In the transition from high school to freshman year in college, there are stressful situations of adjusting to the environment and the new workloads and demands. To be successful, these demands require the ability to use coping mechanisms and confidence to push through adversity, both aspects of mental toughness. However, transitioning to collegiate athletes where there are faster paced games, higher athletic demands, the necessity to be able to balance time between school and athletics are difficult to manage for someone with less experience handling those types of situations. If freshman collegiate athletes came

into college with higher levels of mental toughness, it is possible that it would allow them to play to their athletic potential because they would have the adequate skills necessary to better handle the situation or their environment. By being able to identify if an athlete can handle the transition to college, a coach could decrease recruiting errors because those athletes could then play to their potential with limited outside distractions.

The literature does not present any connecting evidence or the necessity for collegiate coaches to purposefully recruit for mental toughness. If coaches do not purposefully recruit mentally tough athletes, then education from a sport performance consultant may be key in order to help college coaches understand the benefit of this recruiting technique. If collegiate coaches do recruit for mentally tough athletes, it will be important to educate youth and high school coaches of the benefits of training or developing mental toughness characteristics in their athletes. This can help ease the transition into collegiate athletics for the student-athletes to allow the students to be better prepared with collegiate demands.

CHAPTER THREE

PROPOSAL

METHODS

The purpose of this section is to explain the design, participants, instruments and interview guide that will be used in this study. This section will further describe the procedures, data analysis, trustworthiness, and reflexivity performed to gather the results of the current study.

Design

The research will use a qualitative design with a transcendental phenomenological approach (Moustakas, 1994). A phenomenological approach will allow for the most accurate description of the experiences of a Division I primary recruiter. Schram (2003) describes phenomenological research as “a study of people’s conscious experience of their life-world, that is, their “everyday life and social action,” (p. 71) in addition to understanding ‘what’ the participants experience and ‘how’ they experience it. Understanding that there is no one way to recruit student-athletes, the coaches’ experiences and preferences may be diverse. A phenomenological approach will allow the essence of the participant’s experience to be revealed. Using this qualitative method will allow the research to view recruiting through the lens of a college coach’s experience without the researcher’s biases being an influence.

Participants

The study will consist of a convenience sample of 6-8 NCAA Division I primary recruiters (head coaches or assistant coaches). The coaches will be recruited by initially reaching out to NCAA Division I coaches known by the researcher and then will be

selected at random. The initial recruitment criteria will include both male and female Division I coaches who are the primary recruiters for basketball, baseball, volleyball, field hockey, and soccer teams in the Northeastern region of the United States. Coaches must have at least two years' experience at the Division I level because typically in a coach's first year, they begin to recruit athletes for the way they run the team and then, in the second year, they begin to build upon their already committed athletes. Also, participants must spend at least 10 hours over the course of a year in contact time (i.e., phone calls, direct visits, emails, texts) with each potential recruit to allow a bigger breadth of recruiting experiences. However, if the researcher cannot acquire enough participants the study will expand to other sports and regions.

Procedures

Upon approval from the Ithaca College Institutional Review Board (IRB), a recruitment email (Appendix B) will be sent to the predetermined coaches with an informed consent (Appendix C) and a prescreening survey (Appendix D). If the email is sent to a coach who is not the primary recruiter, they will be asked to forward the email to the appropriate person on their staff.

When the prescreening surveys are received, the researcher will contact the coaches who meet the study's criteria to set up an interview time. Before conducting the interview, an informed consent will be sent to the participant. The form will explain that each interview will be associated with a number and there will be no markers of identification associating them with their university. The interviews will be conducted either via phone, Skype, or in person when possible. The interviews will be recorded on an audio device and last anywhere between 30 to 90 minutes.

For all the semi-structured interviews, the researcher will feel free to move with the natural flow of the conversation. By the end of the interview, all participants will be asked the major question from the interview guide. Once the interviews are finished they will be transcribed verbatim and sent back to the participants to check. The participants will be asked to identify if they are adequately represented within the transcript and if they feel anything needs to be added or changed. Transcripts and audio files will be password protected and securely kept on a computer, to which only the researcher has access.

Prescreening Survey and Interview Guide

A prescreening survey will be used in the beginning of this study. The survey begins with demographic questions (age, gender, and ethnicity) then continues with questions that will help the researcher better understand the recruiting context of the potential participant. Sample questions will be, “Are you the primary recruiter for your current team?”, “How many years have you been a NCAA coach?”, “Throughout a year while recruiting, how much contact time do you have with one potential recruit?”, and “Do you recruit for intangible characteristics in potential athletes, not just skill or talent?” An evaluation from these answers will determine if the participant fits the study criteria.

The interview guide (Appendix F) used for this study will help standardize the interviews across all participants. It will focus on one question as dictated by phenomenological research. The question asked will be, “Understanding that skill, talent, and academics are important within the recruiting process, what other characteristics or attributes do you desire your student-athletes to have?” This question was derived from other interviews present in the sport psychology literature (Flett et al., 2010; Jones et al.,

2002) and was piloted by three coaches, then the question was adjusted further by being more concise. Throughout the interview, there will be freedom to ask probing questions such as, “what does that look like?”, “tell me more about...” These questions will help clarify and obtain a better representation of what characteristics are being recruited other than just talent.

Data Analysis

The interviews will be analyzed using the phenomenological procedures recommended by Merriam (2009). The data will be examined in its entirety; the researcher will read and reread verbatim the transcripts, making memos, and observer comments (Bogdan & Biklen, 2007). During the first step of the coding process, the researcher will make sure to use the words of the participants and be as descriptive as possible to show the person’s true experience. Through the process of horizontalization (Merriam, 2009), the initial data (i.e., interview content) will be analyzed using open coding. The second step in the data analysis will be axial coding. During axial coding, the open codes will be further categorized into similar categories, narrowing the data points. The last step will be to discover emergent themes from the axial coding; data will be collected until saturation is reached.

The emergent themes will be displayed in a graphic format which displays the characteristics of mental toughness that the primary recruiters described. Throughout the coding process, the researcher’s thoughts, ideas, and hypotheses will be documented to keep a detailed account of decision points made. Any observations or thoughts about the data will be documented in memos (Merriam, 2009).

Trustworthiness

There will be several procedures to ensure the trustworthiness of this data collection and analysis (Lincoln, 1995; Whittemore, Chase, & Mandle, 2001). Unique to phenomenological designs, the process of *Epoché* will be used to set aside judgments, previous knowledge, personal prejudices, viewpoints, and assumptions when discovering the essence of this phenomenon (Moustakas, 1994). This process will be dependent on the bracketing of the researcher's biases before and during the interviews and throughout the entirety of the study by keeping an audit trail. Maintaining an audit trail will allow the researcher to understand how themes are developing and to ensure dependability within the study (Rodgers & Cowles, 1993). Throughout the research process, the researcher will keep memos after every interview to have a record of developing thoughts and ideas about the research topic. The primary researcher will have practiced with a peer reviewer to ensure the interview questions' effectiveness of obtaining the desired information. Member checking will occur within the transcription by sending the interview verbatim and the hierarchical themes to the participants to make sure everything is plausible and agrees with the findings. Lastly, prior to performing interviews and analyzing the data, the researcher will reflect on her biases and preconceived ideas, assumptions, and judgments via a reflexivity statement (Appendix E)

PROPOSAL

REFERENCES

- Anderson, M. B. (2011). Who's mental, who's tough and who's both? Mutton constructs dressed up as lamb. In D. Gucciardi & S. Gordon (Eds.), *Mental toughness in sport: Developments in theory and research* (69-88). New York, NY: Routledge.
- Anshel, M. H., & Lidor, R. (2012). Talent detection programs in sport: The questionable use of psychological measures. *Journal of Sport Behavior*, 35(3), 239-266.
- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods*. Boston: Pearson.
- Brock, L. (2011). The secrets to recruiting success: A one-on-one with Cal. *AVCA Coaching Volleyball*, 28(1), 8-12.
- Bull, S., Shambrook, C., James, W., & Brooks, J. (2005). Towards an understanding of mental toughness in elite English cricketers. *Journal of Applied Sport Psychology*, 17, 209-227.
- Butt, J., Weinberg, R., & Culp, B. (2010). Exploring mental toughness in NCAA athletes. *Journal of Intercollegiate Sport*, 3(2), 316-332.
- Caro, C. (2012). College football success: The relationship between recruiting and winning. *International Journal of Sports Science and Coaching*, 7(1), 139-152.
- Clough, P., Earle, K., & Sewell, D. (2002). Mental toughness: The concept and its measurement. *Solutions in Sport Psychology*, 32-45.
- Connaughton, D., Wadey, R., Hanton, S., & Jones, G. (2008). The development and maintenance of mental toughness: Perceptions of elite performers. *Journal of Sports Sciences*, 26(1), 83-95.

- Coulter, T. J., Mallett, C. J., & Gucciardi, D. F. (2010). Understanding mental toughness in Australian soccer: Perceptions of players, parents, and coaches. *Journal of Sports Sciences, 28*(7), 699-716.
- Cowden, R., Anshel, M., & Fuller, D. (2014). Comparing athletes' and their coaches' perceptions of athletes' mental toughness among elite tennis players. *The Journal of Sport Behavior, 37*, 221-232.
- Crust, L. (2007). Mental toughness in sport: A review. *International Journal of Sport and Exercise Psychology, 5*(3), 270-290.
- Crust, L., & Azadi, K. (2010). Mental toughness and athletes' use of psychological strategies. *European Journal of Sport Science, 10*(1), 43-51.
- Crust, L., & Clough, P. J. (2005). Relationship between mental toughness and physical endurance. *Perceptual and Motor Skills, 100*(1), 192-194.
- DeLeon, J. (2014). Your Morning Shot: Bill Russell, 1961. Retrieved April, 2017, from <https://www.gq.com/story/your-morning-shot-bill-russell-1961>
- Deloitte & Touche, LLP (2014). 2013 Report of National Collegiate Athletic Association and Subsidiaries. Retrieved from www.deloitte.com
- Driska, A. P., Kamphoff, C., & Armentrout, S. M. (2012). Elite swimming coaches' perceptions of mental toughness. *The Sport Psychologist, 26*(2), 186-206.
- Flett, M. R., Gould, D. R., Paule, A. L., & Schneider, R. P. (2010). How and why university coaches define, identify, and recruit 'intangibles'. *International Journal of Coaching Science, 4*(2), 15-35.

- Fourie, S., & Potgieter, J. R. (2001). The nature of mental toughness in sport. *South African Journal for Research in Sport, Physical Education and Recreation*, 23(2), 63-72.
- Giacobbi Jr. P. R, Roper, E., Whitney, J., & Butryn, T. (2002) College coaches' views about the development of successful athletes: A descriptive exploratory investigation. *Journal of Sport Behavior*, 25(2), 165-180.
- Golby, J., & Sheard, M. (2006). The relationship between genotype and positive psychological development in national-level swimmers. *European Psychologist*, 11(2), 143-148.
- Golby, J., Sheard, M., & Van Wersch, A. (2007). Evaluating the factor structure of the psychological performance inventory. *Perceptual and Motor Skills*, 105(1), 309-325.
- Gould, D., Hodge, K., Peterson, K., & Petlichkoff, L. (1987). Psychological foundations of coaching: Similarities and differences among intercollegiate wrestling coaches. *The Sport Psychologist*, 1, 293-308.
- Graves, K. (2008). Coaches look for more than just talent. *WBMAGAZINE* September/October, 26-27.
- Gucciardi, D. F. (2012). Measuring mental toughness in sport: A psychometric examination of the psychological performance inventory- A and its predecessor. *Journal of Personality Assessment*, 94(4), 393-403.
- Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2008). Towards an understanding of mental toughness in Australian football. *Journal of Applied Sport Psychology*, 20(3), 261-281.

- Gucciardi, D. F., Gordon, S., Dimmock, J. A., & Mallett, C. J. (2009). Understanding the coach's role in the development of mental toughness: Perspectives of elite Australian football coaches. *Journal of Sports Sciences, 27*(13), 1483-1496.
- Gucciardi, D. F., Hanton, S., & Mallett, C. J. (2012). Progressing measurement in mental toughness: A case example of the mental toughness questionnaire 48. *Sport, Exercise and Performance Psychology, 1*(3), 194-214.
- Hardin, R., Trendafilova, S., Kistler, B. A., & Koo, G. (2014). Motivations to recruit international student-athletes: A pilot study. *Applied Research in Coaching and Athletics Annual, (29)* 168-192.
- Horsburgh, V. A., Schermer, J. A., Veselka, L., & Vernon, P. A. (2009). A behavioural genetic study of mental toughness and personality. *Personality and Individual Differences, 46*(2), 100-105.
- Jones, G., Hanton, S., & Connaughton, D. (2002). What is this thing called mental toughness? An investigation of elite sport performers. *Journal of Applied Sport Psychology, 14*, 205-218.
- Jones, G., Hanton, S., & Connaughton, D. (2007). A framework of mental toughness in the world's best performers. *The Sport Psychologist, 21*, 243-264.
- Kaiseler, M., Polman, R., & Nicholls, A. (2009). Mental toughness, stress, stress appraisal, coping and coping effectiveness in sport. *Personality and Individual Differences, 47*, 728-733.
- Kavekar, A., & Ford, S. (2010). Investigation of recruiting criteria of leading NCAA Division I softball coaches. *Sport Journal, 13*(2), 1-7.

- Langelett, G. (2003). The relationship between recruiting and team performance in Division 1A college football. *Journal of Sports Economics*, 4(3), 240-245.
- Letawsky, N. R., Schneider, R. G., Pedersen, P. M., & Palmer, C. J. (2003). Factors influencing the college selection process of student-athletes: Are their factors similar to non-athletes? *College Student Journal*, 37(4), 604-611.
- Lincoln, Y. S. (1995). Emerging criteria for quality in qualitative and interpretive research. *Qualitative Inquiry*, 1(3), 275-289.
- Loehr, J. (1986). *Mental toughness training for peak performance*. New York: Sport Science Associates
- Longhorn, R. (2013). Where do college football players come from? *SB Nation: Football Study Hall*, 1-12.
- MacNamara, A., Button, A., & Collins, D. (2010). The role of psychological characteristics in facilitating the pathway to elite performance part 1: Identifying mental skills and behaviors. *The Sport Psychologist*, 24(1), 52-73.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. John Wiley & Sons. San Francisco, California.
- Middleton, S. C., Marsh, H. W., Martin, A. J., Richards, G. E., & Perry, C. (2004). Discovering mental toughness: A qualitative study of mental toughness in elite athletes [R]. Paper presented at the 3rd International Biennial SELF Research Conference, Berlin, Germany.
- Moustakas, C. (1994). *Phenomenology research methods*. Thousand Oaks CA: Sage.

- NCAA (2016). Sport sponsorships, participation and demographics search. Retrieved from <http://web1.ncaa.org/rgdSearch/exec/main>
- Newland, A., Newton, M., Finch, L., Harbke, C. R., & Podlog, L. (2013). Moderating variables in the relationship between mental toughness and performance in basketball. *Journal of Sport and Health Science, 2*(3), 184-192.
- Nicholls, A. R., Polman, R. C. J., Levy, A. R., & Backhouse, S. H. (2009). Mental toughness in sport: Achievement level, gender, age, experience and sport type differences. *Personality and Individual Difference, 47*, 73-75.
- Pace, R. (2012). Bob Knight: The general's top 20 quotes as a college basketball coach. Retrieved April, 2017, from <http://bleacherreport.com/articles/1080495-bob-knight-the-generals-top-20-quotes-as-a-college-baseketball-coach>.
- Perry, J. L., Clough, P. J., Crust, L., Earle, K., & Nicholls, A. R. (2013). Factorial validity of the mental toughness questionnaire -48. *Personality and Individual Differences, 54*, 587-592.
- Rodgers, B. L., & Cowles, K. V. (1993). The qualitative research audit trail: A complex collection of documentation. *Research in Nursing & Health, 16*(3), 219-226.
- Sander, L. (2008). Have money, will travel: The quest for top athletes. *Chronicle of Higher Education, 54*(47), A1-A4.
- Schram, T. H. (2003). *Conceptualizing Qualitative Inquiry*. Upper Saddle River, NJ. Merrill Prentice Hall.
- Sheard, M., & Golby, J. (2007). Hardiness and undergraduate academic study: The moderating role of commitment. *Personality and Individual Differences, 43*(3), 579-588.

- Sheard, M., Golby, J., & van Wersch, A. (2009). Progress toward construct validation of the sports mental toughness questionnaire (SMTQ). *European Journal of Psychological Assessment, 25*(3), 186-193.
- Smith, R. K. (2000). A brief history of the national collegiate athletic association's role in regulation intercollegiate athletics. *Marquette Sports Law Review, 11*(1).
- Spieler, M., Czech, D. R., Joyner, A. B., Munkasy, B., Gentner, N., & Long, J. (2007). Predicting athletic success: Factors contributing to the success of NCAA division IAA collegiate football players. *Athletic Insight, 9*(2), 22-33.
- Stewart, C., & Meyers, M. C. (2004). Motivational traits of elite young soccer players. *Physical Educator, 61*(4), 213-217.
- Thelwell, R. C., Weston, N. J., & Greenlees, I. A. (2005). Defining and understanding mental toughness within soccer. *Journal of Applied Sport Psychology, 17*(4), 326-332.
- Thelwell, R. C., Such, B. A., Weston, N. J., Such, J. D., & Greenlees, I. A. (2010). Developing mental toughness: Perceptions of elite female gymnasts. *International Journal of Sport and Exercise Psychology, 8*(2), 170-188.
- Van Yperen, N. W. (2009). Why some make it and others do not: Identifying psychological factors that predict career success in professional adult soccer. *The Sport Psychologist, 23*, 317-329.
- Weinberg, R., Butt, J., & Culp, B. (2011). Coaches' views of mental toughness and how it is built. *International Journal of Sport and Exercise Psychology, 9*(2), 156-172.

- Weissensteiner, J. R., Abernethy, B., Garrow, D., & Gross, J. (2012). Distinguishing psychological characteristic of expert cricket batsman. *Journal of Science and Medicine in Sport, 15*, 74-79.
- Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in qualitative research. *Qualitative Health Research, 11*(4), 522-537.
- Wieser, R., & Thiel, H. (2014). A survey of “mental hardiness” and “mental toughness” in professional male football players. *Chiropractic & Manual Therapies, 22*, 1-6.
- Williams, M. H. (1998). *The ergogenics edge: Pushing the limits of sports performance*. Champaign, IL: Human Kinetics.
- Young, J., & Pearce, A. (2010). Teaching mental toughness in tennis. *Journal of Science and Medicine in Sport, 13*, 44-45.
- Zimbalist, A. (1999). *Unpaid professionals*. Princeton, NJ: Princeton University.

CHAPTER 4
RESEARCH MANUSCRIPT

Introduction

Collegiate athletics in the National Collegiate Athletic Association (NCAA) generate millions of dollars in revenue for universities and colleges each year (Deloitte & Touche, 2014). To attract high caliber student-athletes, copious amounts of money are spent on new facilities, equipment, technology, and coaches' salaries which, for some, are all made possible with the revenue accrued by university athletics and the associated athletics fees charged to students (Sander, 2008). When these high caliber student-athletes come to their selected universities, universities are likely to gain national attention with prospective draftees to professional sports and to create the potential for winning national championships. Athletic departments understand that successful programs contribute to overall program and university revenue. Accordingly, some universities spend more than a million dollars on recruiting in all collegiate sports (Sander, 2008). Thus, the ability to identify and recruit talent is the 'lifeblood' of a successful program (Caro, 2012; Kindall & Winkin 2000; Langelett, 2003). Dronyk-Trosper and Stitzel (2017) found recruiting talent has a positive effect on win-loss percentages. A high recruit rating for football has the potential to improve a team's win percentage by 32% for the season, but only for teams who already have a track record of on-field success. While recruiting talent is crucial, the intangible factors, like mental toughness, may be just as critical for success (Gould, Hodge, Peterson & Petlichkoff, 1987; Graves, 2008; Kavekar & Ford, 2010).

Mental toughness is a desired characteristic when participating in collegiate athletics. One NCAA coach explicitly stated, “The amount of pressure we have for the college player, going to the free throw line and having less than a second on the clock.... Who do you want up there? It's the kid that's tough” (Weinberg, Butt, & Culp, 2011, p. 162). Mental toughness has been viewed as a critical psychological characteristic by many coaches (Gould et al., 1987; Packer & Lanzby, 1999) due to its ability to help with the typical pressures of performance in collegiate athletics (Bell, Hardy, & Beattie, 2013). However, coaches’, athletes’, parents’, and sport psychology consultants’ opinions of mental toughness demonstrated a clear disagreement of how mental toughness is defined or described (Jones, Hanton, & Connaughton, 2002; Jones, Hanton, & Connaughton, 2007; Butt, Weinberg, & Culp, 2010; Driska, Kamphoff, & Armentrout, 2012).

Mental toughness characteristics range from thriving under the pressure of competition; pushing back physical and emotional pain (Jones et al., 2002); resiliency and the ability to persevere when adversity is present (Middleton, Marsh, Martin, Richards, & Perry, 2004); and the ability to push through obstacles in your path and to have self-awareness of negative thoughts and feelings (Butt et al., 2010; Jones et al., 2002, 2007). For the purposes of this study, mental toughness was defined as *having self-belief in your own abilities, the ability to cope with the unpredictability of sport, the ability to set and accomplish goals, high motivation even when doing trivial physical tasks, and ability to switch focus on and off when necessary*. This definition was based on the characteristics that were most commonly present throughout the literature.

Mental toughness has been positively correlated with athletic performance (Sheard & Golby, 2007; Weissensteiner, Abernethy, Garrow, & Gross, 2012). Mental

toughness may be especially important as athletes make the transition from high school to college. This transition period presents challenges, especially for first-year students who are first generation, at-risk, and low-income student-athletes (Terenzini et al., 1994). Specifically, in NCAA Division I athletics, student-athletes will have high academic, athletic, and social demands, with a need for good time management skills (Gayles & Baker, 2015). To be successful during this transition, student-athletes need coping mechanisms (Evans, Forney, Guido, Patton, & Renn 2009) that are correlated with mental toughness (Nicholls, Polman, Levy, & Backhouse, 2009). As a result, coaches may want to look for student-athletes who possess certain mental toughness characteristics, such as coping strategies to handle a transition to college and the new demands placed upon them so they can optimally perform during competition (Bell et al., 2013).

For coaches who are recruiting athletes, it could be easier to have a measure to observe the athlete or a questionnaire for the athlete to take to obtain a better understanding of a recruit's mental toughness levels. Mental toughness is challenging to identify due to a lack of a concrete definition or common characteristics; although, researchers have attempted to create valid and reliable measures without this consensus. Of the mental toughness measures and questionnaires created, the majority of them have been found to be sufficiently valid and reliable for research use (Clough, Earle, & Sewell, 2002; Sheard, Golby, & van Wersch, 2009). However, it is highly unlikely for coaches to use mental toughness measurements due to time constraints, accessibility of the measure, lack of knowledge, or lack of training how to use the assessment properly. Therefore, a

majority of coaches evaluate mental toughness through their own observations (Graves, 2008).

As a result, identifying mental toughness in potential recruits is based on the perception and the personal preference of coaches. Some coaches may value certain mental toughness characteristics, such as resiliency and the ability to persevere when adversity is present (Middleton et al., 2004), while others may look for an athlete who knows how to rationally handle success (Jones et al., 2007). Accordingly, coaches must be able to identify their desired characteristics of mental toughness from observing an athlete; talking to an athlete, coach, or relative; and researching an athlete's history and background (Flett, Gould, Paule, & Schneider, 2010). Previous research on the development of mental toughness characteristics suggests that coaches should take into account the critical incidents that happen outside of sport, such as the environment where a child lives, family dynamics, parental issues, or having school-related difficulties, all of which can shape an athlete's mental toughness (Bull, Shambrook, James, & Brooks, 2005; Connaughton, Wadey, Hanton, & Jones, 2008; Thelwell, Such, Weston, Such, & Greenlees, 2010; Van Yperen, 2009). Coaches should also consider the athlete's support system, such as teammates, competitors and sport psychologists, who can assist in the development of mental toughness (Connaughton et al., 2008). Since most mental toughness qualities cannot be observed during competition, coaches must spend additional time evaluating an athlete's mental toughness and ask more direct questions about the listed potential generators of mental toughness. However, conducting this type of in-depth observations and research on a single student-athlete takes more time than coaches have to spend. Consequently, many coaches may only be looking for athletic

talent rather than intangible factors; once an athlete is recruited, one option is for coaches to use the training environment to develop mental toughness.

An athlete's training environment has an effect on mental toughness development. Environments where coaches create rapport through mutual trust and respect have been shown to have positive effects on building mental toughness in athletes (Connaughton et al., 2008; Van Yperen, 2009; Butt et al., 2010; Thelwell et al., 2010). Athletes exposed to adverse conditions, athletes who are out of their comfort zone, have their limits tested, and learn to cope in these situations, can heighten the characteristics of mental toughness (Middleton et al., 2004). Accordingly, mental toughness can be developed within the increased demands of a collegiate setting, and coaches may overlook mental toughness characteristics in recruitment if they believe they can develop it themselves once the athlete is on campus. If coaches believe they can develop the preferred characteristics in their potential athletes, it is possible that these coaches focus only on physical abilities and talents during recruitment. Currently, there is little literature on how coaches are recruiting their athletes, therefore this is an important factor to investigate further.

The benefits of recruiting mental toughness characteristics seem clear (e.g., understanding best practices in psychological skills training, how it impacts athletic performance), however, little research has examined if or how college coaches consider this factor when recruiting athletes. It is suspected Division I coaches believe they purposefully recruit mentally tough athletes; however, there is no evidence to support this claim. There is a gap between a coach's desire for mentally tough student-athletes and the potential lack of actively recruiting for any characteristics of mental toughness. Thus, the purpose of this study was to use a transcendental phenomenological approach to explore

NCAA Division I coaches' lived experience of the recruitment process. This study was specifically focused on the coaches' perceived recruitment of mental toughness characteristics in potential student-athletes.

Methods

A transcendental phenomenological approach was used to study the nature and scope of desirable characteristics Division I coaches are seeking in the student-athletes they recruit from high school teams. The procedures of Creswell, Hanson, Clark Plano and Morales (2007) for conducting phenomenological research include: exploring researcher bias, describing participants, collecting data, and analyzing the data which are described below.

Researcher Bias

The researcher, having read a multitude of mental toughness literature, had developed assumptions about information on the topic leading into the interview process. During the interview those assumptions could have affected probing or leading questions and therefore possibly influenced the responses that were collected. An advisor assisted in the development of the primary investigator's interview guide and in practicing the investigator's qualitative interviewing skills. The reflexivity statement in Appendix G was an additional way for the interviewer to control for biases.

Participants

Participants included six randomly selected NCAA Division I coaches ($M_{age} = 35$, 67% male). Participants ethnicities were 83% ($N = 5$) Non-Hispanic White or Euro-American, and 17% ($N = 1$) East Asian or Asian American, and were geographically located in the Northeast and Midwest regions of the United States. Coaches had an

average of 10.8 years' experience coaching at the Division I level, with an average of 15.8 hours spent a year on recruiting an individual prospect as primary recruiters for their universities. A full description of participant characteristics, including demographic information can be found in Table 1.

Table 1

Participant Demographics

Participant	Gender	Age	Race/Ethnicity	Sport	Years' experience	Hours spent recruiting one athlete over a year
1	Male	30	Non-Hispanic White or Euro-American	Men's Basketball	8	10-14
2	Male	33	Non-Hispanic White or Euro-American	Baseball	10	15-19
3	Male	29	Non-Hispanic White or Euro-American	Men's Soccer	4	10-14
4	Male	51	Non-Hispanic White or Euro-American	Men's Volleyball	25	10-14
5	Female	28	Non-Hispanic White or Euro-American	Women's Volleyball	3	30+
6	Female	39	East Asian or Asian American	Field Hockey	15	20-30

Procedures

After receiving approval from the Institutional Review Board (IRB), emails were sent to 491 NCAA Division I coaches in the Northeast and Midwest regions of the United States. The initial contact email described the procedures and purpose of the study and

asked participants to fill out a recruitment questionnaire. From this initial recruitment phase, $n = 48$ coaches stated they were interested in being interviewed. Of those 48, $n = 24$ coaches were ineligible to participate for failing to meet the inclusion criteria: they answered “no” to “do you consider yourself to be a primary recruiter of your team?”; they did not have enough experience coaching, or they did not spend at least 10 hours a year recruiting a potential student-athlete. The remaining coaches ($n = 24$) were then contacted via email to schedule an interview. Six participants were selected for the interview, on a first-come first-serve basis, and completed the interview. An informed consent form was emailed to the participant after the agreed upon time for the interview was established. Participants verbally consented over the phone before the interview was conducted. All of the interviews were conducted over the phone at a mutually agreed upon time between the researcher and participant while the researcher was in a private classroom on campus.

Measures and Interview Guide

Recruitment Questionnaire. The recruitment questionnaire listed demographic information such as gender, age, and ethnic background. Questions related to being the primary recruiter, sport coached, how many years they have coached at a Division I institution, if they recruited for intangible factors and how many hours per year spent recruiting one individual athlete were asked in the recruitment questionnaire. These questions were asked as yes or no, fill in and multiple choice format on the recruitment questionnaire. Additionally, spaces for the participant to provide contact information such as an email address, were provided on the questionnaire.

Interview Guide. The format of the interviews was semi-structured, beginning with a broad, open-ended question that was modeled from Flett and colleagues (2010)

who asked Canadian coaches, “What intangible attributes do coaches look for in athletes?” Instead of asking explicitly about the intangible attributes Division I coaches desire, the participants were asked to describe the attributes in general that they want in potential student-athletes. Every participant was given the opportunity to express additional thoughts throughout the interview. Typical to phenomenological research, the type of responses evoked from the participant being interviewed influenced the wording, phrasing, and type of follow-up questions.

The researcher had appropriate graduate training and practice in qualitative interviewing. The researcher piloted the interview to develop the initial question of the research prior to identifying the participants in this study. It was necessary for the researcher to ask probing questions for more information about the participant’s experience of recruiting student-athletes.

Data Analysis

Interviews were audio recorded and ranged between 27 to 56 minutes in length. Interviews were transcribed verbatim by the principal investigator and analyzed independently before proceeding to conducting the next interview and its’ subsequent analysis. First, the data (i.e., interview content) was analyzed using open coding. During open coding, the data was broken down into notable words and phrases used by the coaches themselves in the interviews. Any observations or thoughts about the data were documented in memos (Merriam, 2009). This initial coding process was inductive; items were not grouped into meaningful categories during this phase.

The second step in the data analysis was axial coding. During axial coding, the open codes were further categorized into similar categories, narrowing the data points.

Relationships between the axial codes were deciphered into selective codes of a unified and overarching theoretical concept in an attempt to understand the experiences coaches had while recruiting student-athletes (Creswell et al., 2007).

The last step was to discover emergent themes from the axial coding. The axial coding for each interview was merged into one document. After each new participant was interviewed, the interview was analyzed and added into the document. Appendix H contains the themes, sub-themes and initial codes of each interview. The list was established without reoccurring patterns and then grouped into individual categories until the data was saturated. Saturation occurred after six participants and data collection ceased after no new themes emerged. The researcher believed if more participants were added to the study there would not be additional themes that could add to the depth of the research. Final themes were compiled together in a meaningful way to draw relevant inferences about what the data reflected. After completing the data analysis inductively for naturally emerging themes across participants, the themes were deductively compared to characteristics of mental toughness to better understand if coaches were actually recruiting for characteristics of mental toughness.

Trustworthiness. There were several procedures used to ensure the trustworthiness of the data collection and analysis procedures (Lincoln, 1995). Unique to phenomenological designs, the process of *Epoché* was used to set aside judgments, previous knowledge, personal prejudices, viewpoints, and assumptions when discovering the essence of this phenomenon (Moustakas, 1994). The researcher bracketed biases throughout the entirety of the study by keeping an audit trail. Maintaining an audit trail through memos allowed the researcher to understand how themes were developed and

ensured reliability within the study (Rodgers & Cowles, 1993). Additionally, throughout the research process, the researcher took notes to have a record of developing thoughts and ideas about the research topic. There was an advisor who reviewed the development of emergent themes and assisted with the research study. Any words that were repetitive or distracted from the overall meaning of the transcript were removed. Lastly, to ensure accuracy, each interview transcript was returned to each participant to provide an opportunity to add anything (Moustakas, 1994); no revisions were suggested by the participants.

Results

Four major themes emerged as these Division I coaches described their focus when recruiting potential student-athletes. These themes were: 1) *The Recruit as a Person*; 2) *The Recruit's Interactions with Others*; 3) *Desired Competition Behaviors*; and 4) *Fit with Program*, as seen in Figure 1. The themes presented below capture the characteristics of student-athletes, which Division I coaches desire.

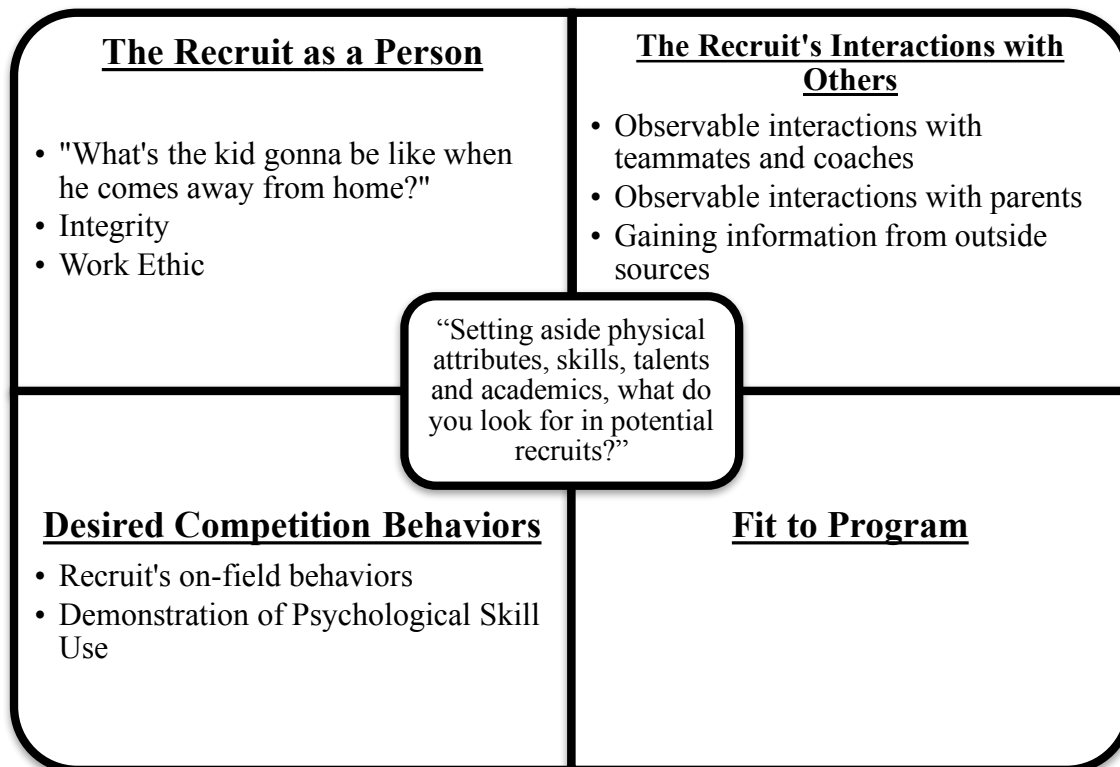


Figure 1. Visual Depiction of Emergent Themes. The sub-themes are listed below of each emergent theme found in the study. To note, *Fit with Program* does not have any sub-themes.

Theme 1: The Recruit as a Person

As sport is an activity that a person participates in and is not a singular identity of a person, it is important to understand who the student-athletes are at their core. As coaches work directly with student-athletes on a daily basis, the coaches in this study articulated a desire to understand the characteristics of the recruit. Understanding the fundamentals of a student-athlete may lead to a better understanding of who they may be as a competitor. The student-athlete as a person depends on characteristics that may be difficult to change. The characteristics can be influenced, but when discussing these characteristics, the coaches spoke about these characteristics in absolutes, implying that they did not want to have to develop or change these characteristics.

Sub-theme 1: “What’s the kid gonna be like when he comes away from home?”. This quote was representative of coaches that wanted to understand what that recruit would be like when they came to college. Coaches 1, 2, 3 and 6 expressed that they noticed the type of character the student-athlete had as one of the first characteristics observed and desired. C2 questioned “How do they act when no one’s around?” while C3 asked a similar question when looking for potential recruits: “What’s the kid gonna be like when he comes away from home?” Character, for this study, was defined as having a moral or ethical code. Coaches felt that, when student-athletes had good character, they were more desirable to have on their team. The student-athlete’s character, for coaches, encompassed many different attributes and characteristics.

The character traits that coaches were seeking varied by coach but were very specific. Coach 4 said he was, “looking for someone that has a strong personality.” Another trait that was described was being responsible. Coach 3 sought out “How they handle responsibility when its given to them, I’m gonna have to ask him to apply, I’m gonna have to ask him to call me at a specific time or ya know whatever that is and how quickly he gets those things done”, whereas Coach 4 really looked for “Somebody who’s had a job before coming to school. I think that speaks more towards the individual learning responsibility.” On the other hand, Coach 6 stated that she steers clear of athletes that “blames the coach for anything that has to do with the tournament or a loss.” A variety of traits and characteristics are desired by coaches as they become more acquainted with these potential student-athletes.

Sub-theme 2: Integrity. Integrity was defined as *living or behaving* in line with ones’ moral and ethical code (Integrity, n.d.). Coaches looked for players that “[Do] the

right thing.” For Coach 3 this elicited a string of questions about how recruits would behave at the university on and off the field “Is he going to come to school to party? Is he gonna come to school to get focused on an education? Is he going to be a kid that’s stealing stuff on road trips?” This line of questioning demonstrated the expressed need for a coach to trust their athletes. Along with trustworthiness, an athlete’s credibility was a worry for Coach 4 who indicated “if your individual actions don’t back up what are coming out of your mouth then you have no credibility...” especially because Coach 4 believed it could impact other teammates “... if [teammates] are seeing from you what you’re talking about then that’s when they’re like, ok, let’s try this.” Overall, coaches wanted to know if the potential student-athlete on their team could “do the right thing” when a situation presented itself.

Sub-theme 3: Work Ethic. Work ethic was defined as acting upon drive or determination without expecting external rewards. Coach 2 described wanting to observe recruits that are “working hard because they want to get better not just because coach is watching.” In the same vein, Coach 1 and 6 wanted to see an athlete who “makes effort plays” and who is “pretty much running back and hustling to make the next play” after turning over possession of the ball. These were all indicators of athletes who had an appropriate work ethic for coaches.

Outside of athletics, Coach 1 and Coach 4 mentioned looking at the recruit’s life and wanting to see a “high work ethic across all aspects of life” or for “kids that want to be excellent across all areas in life.” This statement aligned with some coaches inquiring if recruits were “good students” or “academically oriented,” inferring that athletes who

had a high work ethic in many areas of their life were desirable for a coach to have on their team.

To summarize Theme 1, in the pursuit to understand a potential recruit at their core, coaches investigated the type of character the student-athlete had, the personality traits present, as well as their integrity and work ethic. All of these traits led coaches to believe the recruit was someone they would keep pursuing.

Theme 2: “I don’t want a lot of drama”: The Recruit’s Interactions with Others.

This theme was conceptualized as any time a coach mentioned watching the student-athlete from a distance when the student-athlete was unaware the coach may be watching for ‘red flags.’ The observable interactions and information gathered from additional resources were used in a way that coaches made assumptions and judgements about how the student-athlete would interact with them as a coach. Coaches indicated that these behaviors were future predictors of how the student-athlete and coach interaction would unfold when recruits came to school as a freshman. Coaches believed observations of on and off field interactions with teammates, coaches, and parents as well as acquiring information from outside sources had a significant influence on whether the coach continued to pursue the potential recruit.

Sub-theme 1: Observable Interactions with Teammates and Coaches.

Coaches described ‘observing student-athletes interactions with others’ as an indicator of what the athlete would be like as a member of the team. When observing, Coach 1 wanted to see a student-athlete who “interacts well with teammates,” or as Coach 3 expressed while he watched a student-athlete, he would ask himself questions such as

“what happens when they score a goal? How do they behave, are they celebrating by themselves, do their teammates come over? All of those little things point you towards what the kid’s like and how well he’s liked and what kind of kid he is.” Other coaches echoed these sentiments and looked at “the way they talk to their teammates,” or “the way they behave.” Coach 1 mentioned he looked for how the student-athlete “[interacts] with people during adversity.”

Coaches mentioned the interactions recruits have with their high school or club coaches. Coach 4 recapped that “[you can] tell watching a player interact with his coach in a time out when they’re down or something like that, what his mindset is. I mean you can tell just looking at somebody is he participating in this conversation, is he checked out?” and noticing in “the good times and bad times, is there a change in demeanor when their interacting. The more that demeanor stays the same across the board, that’s an important quality that we look for.” This observation meant coaches were specifically looking at the poised interactions recruits were having. In the opposite light, Coach 6 was able to express looking at whether “[athletes] yell at their coaches, do they talk back to their coaches?” In general, interactions were good indicators to coaches whether they would want to keep recruiting a student-athlete.

Sub-theme 2: Observable Interactions with Parents. Many of the coaches looked to parental interactions as indicators if the student-athlete was a desirable recruit. Coach 5 states, “I watch how they interact with their parents and their coaches because that will tell you a lot about a kid.” Coach 6 expressed attributing how a student-athlete interacts with their parents as a way the student-athlete will interact with her “if they talk back to their parents or are disrespectful they’re certainly going to do the same to me.”

Coach 2 did not want any “overbearing parents.” Overbearing parents were described as undesirable in the recruiting process. Coach 3 described a situation where he stopped recruiting a player when “parents that are extremely, I guess, aggressive or kind pushing their kids in one direction I think tend to be a turn off because typically when that kid gets away from that parent’s style, they’re going to struggle for motivation more.” Additional statements by Coach 3 emphasized the importance of the level of parental involvement in the recruiting process including “A red flag to me is when the parents want to be heavily involved” or “The parents I have more success with in the recruiting process are the ones that push the player to interact and ask questions and to be thoughtful with their responses.”

Sub-theme 3: Gaining Information from Outside Sources. Coaches identified that it is important to gain insight into the student-athlete from multiple outside sources. Half the coaches (C3, C4, C6) described wanting to reach out to references “...to meet their parents and anybody else that’s close to them just to get a sense of how they behave or what they interact like.” Coach 4 wanted to gain information from a student-athletes coach post game: “Typically after I watch a situation unfold, something happened in the course of the match I want to talk to that coach later about that event and say ‘what happened there?’” Another example was asking the high school or club coach, “how do they handle pressure?” It was important to corroborate the coaches’ observations with the knowledge of others closer to the recruit. A coach’s understanding of how recruits interact with others may be a mirror of how the recruit will act with the coach and their potential teammates, a dynamic that coaches care about as they will be accepting this recruiting into their team.

In summary, a coach's investigation of an athlete did not stop at the personal interactions they had with the student-athlete themselves. The observation of interactions a student-athlete had allowed coaches to make a judgment if the athlete would fit in with their specific coaching style and if the recruit could potentially fit into the team culture. For example, if an athlete is being 'coddled' by their parents and the coaches program is based in responsibility or work ethic, the athlete may be less desirable based from on assumed behaviors about the athlete. Overall, every student-athlete interaction meant something to the coach regardless if it meant anything to the student-athlete performing the action or behavior.

Theme 3: Desired Competition Behaviors.

Coaches also observed competitions while recruiting student-athletes. Any behavior or observation a coach made while the student-athlete was competing or playing a game was important. Beyond physical abilities, skills and athleticism, coaches are looking for behaviors that they believed emulated psychological markers of who the athlete is as a performer. Psychological skills were conceptualized as skills coaches or sport psychology consultants work to improve through psychological skills training. If student-athletes demonstrated competition-like behaviors and used psychological skills while playing, then coaches believed the recruits could compete and be successful at the Division I level.

Sub-theme 1: Recruit's On-field Behaviors. A majority of coaches expressed leadership qualities to be important when observing a student-athlete competing. Coach 1 was questioning if they were "leading by example" or using "vocal leadership" while competing. Coaches are actively "looking for leaders at all times." Coach 3 mentioned

asking himself a line of questions that included, “Does he make the people around him better? How do you pull other people to respond with you?” after watching a recruit.

Coaches also observed demonstrations of a student-athlete’s competitiveness. Coach 4 described competitiveness by saying “even if they don’t win, it’s about how they go about their business competing, I define success is for the guys it’s not about winning or losing, it’s about competing and by competing I mean we’re going to play as hard as we can, as well as we can for as long as we can.” Coach 2 described it as “knows how to win” or “how into the game shows how competitive he is.”

Coaches 1 and 6 mentioned that they looked for student-athletes who were “good teammates” while Coach 4 noted he was looking for players that could be trusted. When asked to further elaborate on what that looked like on the court, the coach described it as:

“When you don’t trust your teammates you try to do more. And if he’s checked out that basically means he doesn’t trust the person that’s talking to them and trust is maybe the most important factor in terms of both between players on the court and the players and the coach because if you don’t trust your teammates then you start to do more than what you should probably and that just leads to bad things.”

Overall, a recruit’s behaviors while competing warrants coaches’ attentions and judgements.

Sub-theme 2: Demonstration of Psychological Skill Use. Coaches mentioned an array of psychological skills they wanted their student-athletes to use. Coaches desired their recruits to demonstrate appropriate on-field decision making abilities (C3), acceptance and execution of given roles (C1), and self-confidence (C2). Coach 4 stated he

looked for mental strength shown by “guys that are mentally strong to handle some of the positions that require most of the contacts” as well as wanting to see a recruit who can focus. Coach 4 believes when “fear creeps in and starts making you tentative in your activities that’s because you’re afraid of losing. Where if you can just focus on the process of the play, the next contact that I have to be responsible for, you don’t have time to think about that and it lets you play freer or looser.”

Coach 1 and 4 mentioned they wanted recruits who were demonstrating personal control of their emotions by “staying poised” or as Coach 4 described observing one recruit as “it’s not about him being emotional. He just lost it, that’s an example of somebody that’s being controlled by his emotions instead of being in control of his emotions...” Half the coaches (C4, C5, C6) believe it was crucial to know if student-athletes could handle feedback. For example, Coach 6 stated “pretty much the coach was yelling out instructions and was not happy with a player and just, like if the player can take it and physically, you kind of have to look at their facial expressions and if you can tell if they’re totally flustered then they can’t handle that kind of coaches.”

Every coach in this study wanted to see how a student-athlete handled adversity while competing. Coach 1 wanted to know a recruit’s reaction when “[a] referee makes a bad call. How they handle being benched by their coach.” Other coaches, Coach 5 and Coach 6, have stated some “...players will get a bad call and drop their shoulders and they look down physically they allow their body look disappointed,” which is a body language indicated that they are not handling adversity effectively. Coach 4 really enjoyed watching the whole game unfold because he likes to watch how an athlete manages himself and react:

“...teams get in a tough situation. When they are playing some team and they get down and it’s towards the end of the game that’s when I learn the most about these guys. How do they react under those circumstances? If their beating somebody badly everybody plays well in those circumstances so you don’t learn anything. It’s the guy that manages things and handles things...it’s more about how things unfold over the course of that- that I pay attention to.”

During times of adversity in competition, coaches looked for what they believed to be an acceptable reactions in situations the recruits were facing.

In summary, observations of body language through competition seemed adequate to describe how coaches made their assumptions and judgements about a student-athlete. Whether it is the athlete showing they are a good teammate, or how they handle adversity, it is a judgment made through observations as it is difficult to ask the player what they were thinking in that specific moment. Above all, this theme seemed most universal, especially in sub-theme two, where all coaches agreed upon the desire to have an athlete who can appropriately handle adversity.

Theme 4: Fit with Program

Recruited student-athletes will not attend the school if they do not want to enroll at that university. Most importantly a coach must understand how a student-athlete could fit with the athletic program. The athletes must have a desire to play for the program recruiting them and fit into the culture and coaching style of the team. This theme was conceptualized by coaches describing if an athlete could handle their program demands

and if the athlete liked what the university could offer, educationally and athletically. If coaches believed the athletic program and the program characteristics would support the athlete, coaches would pursue the student-athlete. If not, the coach had to move forward, investing more time in another student-athlete who would match better with the program.

More than half of the coaches (C2, C3, C4, C6) believed that fit with athletic program was a deciding factor in the continuation of recruiting a student-athlete. Coaches looked at what kind of program the athlete came from, as Coach 6 notes "...we are looking for players that are coming from good coaching programs...where the coach is tough on you and demands a lot, they [athlete] are going to be better prepared for the demands of Division I." Coach 2 expressed that he looked for a "personality that fits with the style that they coach" while Coach 4 mentioned student-athletes "need to fit in here, they need to fit with the program and the coaches specifically." If all of these answers from the athlete lined up with what the coach's university can offer, then the coach will continue to watch and observe the athlete. In summary, this theme, *Fit with Program*, seems to exemplify that coaches valued and understood that they should continue pursuing the athlete based on fit. If a coach deemed that the student-athlete would not be a good fit for the coach's program, the coach dropped interest and moved onto another potential recruit.

In conclusion, the themes represented and encompassed the attributes and characteristics coaches desired in a potential recruit. Coaches deduced this approach through their own interactions and observations of the student-athlete. The observations made by the coaches indicated whether a coach would want the recruit to play for their

team or is someone they believed can have an impact on during the course of multiple seasons to heighten skills.

Discussion

This study used phenomenological, in-depth interviews with Division I coaches to obtain these coaches' perspectives in regards to evaluating potential student-athletes. The in-depth interviews addressed the research question of what psychological factors Division I coaches desire in the recruiting process, and to better understand if mental toughness was something coaches were recruiting in student-athletes. Implications for athletes, sport psychology consultants, high school, club and college coaches will be discussed.

Specific psychological factors that Division I coaches searched for in the recruiting process were found in theme 3, *Desired Competition Behaviors* within sub-theme 2, *Demonstration of psychological skill use*. This sub-theme directly related to the research question of what psychological factors are coaches looking for in potential recruits. The psychological skills found in the present study aligned with various characteristics coaches from existing literature believe to encompass mental toughness. The main skills were emotional control (Butt et al., 2010; Clough et al., 2002; Coulter, Mallett, & Gucciardi, 2010; Driska et al., 2012; Fourie & Potgieter, 2001; Gucciardi, Gordon, & Dimmock, 2008; Jones et al., 2002, 2007; Thelwell, Weston, & Greenlees, 2005), enjoys/able to meet challenges (Clough et al., 2002; Coulter et al., 2010; Jones et al., 2007), and handling adversity (Clough et al., 2002; Coulter et al., 2010; Fourie & Potgieter, 2001; Gucciardi et al., 2008; Jones et al., 2002, 2007; Middleton et al., 2004; Thelwell et al., 2005). To note, Flett and colleagues (2010) was the only scientific study

[not an informal interview done with a coach (e.g., Graves, 2008)] where coaches explicitly stated they looked for ‘sport psychology skills.’ Based on the used definition of mental toughness, the ‘coping skills’ that coaches desired most were being able to handle adversity as the best example of recruiting mentally tough athletes. This particular psychological skill, handling adversity, was found in the majority of the existing literature and was found in all of the current participant’s interviews when coaches were asked about what they desired in potential recruits.

The definition of mental toughness used for this study was compiled from the most common characteristics found in popular mental toughness literature, i.e., *having belief in your own abilities, the ability to cope with the unpredictability of sport, the ability to set and accomplish goals, high motivation even when doing trivial physical tasks, and ability to switch focus on and off when necessary. The ability to cope with the unpredictability of sport* or handling adversity was the only specific component of the definition found in this study. This finding suggests that mental toughness, as defined in this study, is not a factor coaches are deliberately recruiting for in potential student-athletes. However, half of the coaches interviewed (C3, C4, & C6) explicitly stated that they wanted a student-athlete who was “strong mentally” or “mentally tough, if you wanna call it that” or had claimed to be able to “...tell they [recruits] aren’t as mentally tough as other players or as disciplined as others.” It seems as though coaches desired mental toughness. However, when coaches were asked to explore what they were looking for when recruiting student-athletes, this mental toughness characteristic did not align with the previous literature. The other major themes also did not indicate any specific

psychological skills that coaches desired in the recruiting process or were found in the present definition of mental toughness.

Looking at Figure 1, the visual depiction of emergent themes closely mirrors the socioecological model (Bronfenbrenner, 1979). The model represents four separated but interrelated parts in the coaches' evaluative process of potential recruits. The model consists of: the micro-system (The Recruit as a Person), meso-system (Recruit's Interactions with Others), exo-system (Performance Observations), and macro-system (Fit with Program). By recognizing coaches may be evaluating recruits in this framework, SPC's can help strengthen a coach recruiting behaviors or collaborate with the coach to change the behaviors, if coaches are not recruiting the types of athletes they want.

The emergent themes discussed below were gathered from conversations coaches had with the recruit or were observable interactions the coaches had witnessed, which influenced whether or not those characteristics were desirable for coaches to recruit. *The Recruit as a Person*, centered on the sub-themes of "what's the kid gonna be like when he comes away from home?" as well as the *work ethic* and *integrity* of a student-athlete. Previous authors have identified that the desired traits of character and integrity is sparse. Flett and colleagues (2010) and Spieler and colleagues (2007) found character development and integrity (trustworthiness) to be attributes coaches desire in the recruiting process. Selflessness, which was a desired characteristic that coaches wanted in this study, was identified as a trait of mental toughness by Fourie and Potgieter (2001). Similarly, work ethic was a desirable for coaches in both the current study and previous literature (Flett et al., 2010; Kavekar & Ford, 2010; Butt et al., 2010). Young and Pierce

(2010) found coaches believed they could develop such a trait whereas Gucciardi and colleagues (2008) and Coulter and colleagues (2010) believed it to be one of the main components to consider if an athlete is mentally tough. These results suggest that coaches desire on their team student-athletes who have high integrity, work ethic, and character. As a result, it seems that coaches may only want to emphasize skill or physical development when working with athletes instead of also molding character development in the college setting.

Recruit's Interactions with Others, consisted of three sub-themes; *Observable Interactions with Teammates and Coaches*, *Observable Interactions with Parents*, and *Gaining Information from Outside Sources*. Previous research supports coaches relying on a recruit interactions with others in the recruitment process (Flett et al., 2010; Spieler et al., 2007) where coaches stated they used their own perceived reliable information from multiple sources (youth coaches and teachers), observed performance (behaviors between plays; interactions with coaches and teammates), and observed family dynamics (child-parent relationship, overbearing parents). Previous researchers has mentioned the influence parents had on the development of mental toughness, which in this study did not emerge. Studies have shown that parents have the ability to help their children gain mental toughness (Bull et al., 2005; Butt et al., 2010; Connaughton et al., 2008; Giacobbi, Roper, Whitney, & Butryyn, 2002). On the other hand, other investigators demonstrated that a lack of parental support also helped develop mental toughness and gain respect from their coaches (Thelwell et al., 2005). In the current study, there was no mention of family environment, except for concerns when parents were seen as being overbearing, leading to a potential lack of mental toughness development. Nonetheless, student-athlete

interactions with others were deemed as important by the coaches because of the valuable information as future behavioral indicators of how the recruit would act with the coach and on the team.

Desired Competition Behaviors, consisted of the two sub-themes; *Recruit's On-Field Behaviors* and *Demonstration of Psychological Skill Use*. Competitiveness in this study was described as an athlete who wants to win games and to maintain team chemistry through leadership and being a good teammate. Existing research mirrored the present study's findings that leadership was a desired trait for recruits to have (Flett et al., 2010). Leadership qualities were included as to what coaches described as competitiveness. On the other hand, previous studies had mentioned that leadership was actually considered a component of the mental toughness definition (Butt et al., 2010, Clough et al., 2002; Coulter et al., 2008, Fourie & Potgieter, 2001).

Fit with Program was similar to findings of Flett and colleagues (2010) where coaches wanted to make sure potential student-athletes would fit with the athletic program for which they were being recruited. Coaches would inevitably not waste their time on someone they did not believe they could impact or with whom they could not create a relationship with. More importantly, the coach-athlete relationship is important for athletic development (Connaughton et al., 2008) and optimal performance. Coaches will not get the most out of their athletes if they do not have positive feelings about the relationship (Thelwell et al., 2010). The repercussion of investing time into an athlete who may not fit into a program and is only being recruited because of his or her athletic skills, should be weighed by coaches. This notion could influence team cohesion due to the perception of interaction between an athlete and coach (Jowett & Chaundy, 2004).

The potential negative interaction (i.e., athlete does not follow team rules, but has playing time because of athletic ability) can produce resentment, jealousy or lack of motivation (Jowett & Cockerill, 2002). *Fit with Program* was likely valued by coaches in this study due to the consequences associated with poor fit.

Implications of Research Findings

These results demonstrate that coaches may not understand how the traits they desire in athletes match with the characteristics of mental toughness as defined by sport psychology consultants (SPCs). This finding suggests there is disconnect between the academic research and the practical application of using the concept of mental toughness in the recruiting process. If this is the case, there may be a need for further investigation in terms of the SPC's role in the recruiting process, even if only indirectly. If an SPC works directly with coaches, it could be important for the consultant to discuss the most desirable characteristics the coach wants in their recruits. This type of evaluation could inform coaches' recruiting tactics and the format of the interviews conducted with the players and parents.

However, it seems as though there is no objective, negative outcome to coaches not technically recruiting mentally tough athletes. If coaches believe they are recruiting athletes that are mentally tough based on their perception of what mental toughness is or should look like, they will also most likely be pleased with the type of recruit coming to their program. This belief will influence the continuation of these recruiting behaviors from a coach's perspective, unless they are unhappy with the characteristics of athletes in their program, which could result in them recruiting different characteristics. As a field, much is unknown about the recruiting practices used by coaches. These findings suggest

the need to examine and understand these coaching practices. On the other hand, SPCs may also need to work more closely with coaches to understand their perception of mental toughness and what coaches desire in their potential recruits. As this is one of few studies done on this topic, there must be more research done on mental toughness in general, specifically the relationship between mental toughness and the coach recruiting process. If the literature on mental toughness is guiding SPCs practices and the literature provides no evidence of understanding what coaches are actually desire while recruiting potential student-athletes (i.e., being used in the ‘real world’) then, as a field, we need to allocate more research to this particular topic. This topic of recruiting and the SPCs role in Division I athletics is an important component of creating and selecting teams for potential high caliber programs.

There is a possibility that mental toughness is being used as a ‘buzz word’ by coaches. This term may have no functional meaning in the recruiting process beyond that of a generic phrase coaches use to describe the specific characteristics they have always desired in their athletes. Coaches and other members of the athletic community have taken the phrase ‘mentally tough’ and applied it to an everyday practice where the implication of this phrase has lost meaning, if it ever had one beyond academic knowledge. Due to a lack of agreement of the definition of mental toughness and the ambiguity between the characteristics in the literature, it is important to recognize and understand what coaches really mean when they say, “I want a kid who’s mentally tough.” Overuse of a word or phrase can diffuse the meaning, which may have occurred with the word mental toughness. In general, as a field we should be more proactive when it comes to translating our research into practice, to limit these misunderstandings of

terms and to provide better resources so our clients (e.g., coaches) understand what they mean when they use such terms.

Additionally, SPCs that may not be working directly with a coach should keep in mind that, as demonstrated by the results, character development is crucial. SPCs could broaden the scope of their psychological skills training by adding a character development curriculum. In reference to the relationship between parents and their child, it could be important for SPCs to educate parents on the recruiting process on what coaches are looking at while observing games, and on additional behaviors. Working with potential parents as clients, the implication of the results indicated coaches wanting more independent recruits. The participants valued independent recruits due to the responses of observing and making judgments on a recruit's interactions with their parents (DeBard, 2004). As a result, it may be helpful for parents to recognize their role in the recruiting process and how parent interactions are perceived by coaches.

A final finding that may have further implications was that male coaches (C1, C2, C3 and C4) spent on average less hours per year recruiting an individual athlete than female coaches (C5 and C6). The female coaches in this study spend 20-30 hours or more observing and creating relationships with potential recruits over the course of a year. This difference could be due to females typically valuing personal relationships more than males (Taylor, Klein, Lewis, Gruenewald, Gurung, & Updegraff, 2000). This gender difference is worthy of further investigation and could be important to understanding if female coaches value developing relationships with their recruits more than their male counterparts as well as understanding this difference anecdotally.

Limitations

Limitations of the study were the participants could only divulge about their experiences as a Division I coach and the findings may not transfer to the experiences of other NCAA Division coaches. Another limitation was the participants attempting to recall what they are looking for in their recruits and having to remember the situations. For future studies, researcher may want to attend a recruiting trip with a coach and document what the coaches are looking for and observing while watching in real time. As with all qualitative research, another limitation is that it is unknown if the coaches were completely honest with their answers for fear of revealing recruiting secrets. The last limitation was that it was difficult not to lead participants to talk directly about mental toughness, due to the phenomenological approach used. Not posing leading questions to coaches is essential if coaches are actively seeking, desire or can identify mental toughness in potential student-athletes in the recruiting process.

In conclusion, the results of this study strengthened prior studies done on what coaches' desire in potential recruits and began an investigation into how coaches recruit for mental toughness through the field of the sport psychology field. The more qualitative research gained, the more accurate evidence-based practice can be which leads to better informed SPCs providing reliable and helpful guidance to coaches and teams. This study helped to highlight the discrepancies between literature and real world application, further expanded the research conducted with a coaches recruiting process in the field of sport psychology, and addressed implications and future direction to broaden the scope of these findings.

References

- Bell, J. J., Hardy, L., & Beattie, S. (2013). Enhancing mental toughness and performance under pressure in elite young cricketers: A 2-year longitudinal intervention. *Sport, Exercise, and Performance Psychology*, 2(4), 281-297.
- Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American Psychologist*, 34(10), 844-850.
- Bull, S., Shambrook, C., James, W., & Brooks, J. (2005). Towards an understanding of mental toughness in elite English cricketers. *Journal of Applied Sport Psychology*, 17, 209-227.
- Butt, J., Weinberg, R., & Culp, B. (2010). Exploring mental toughness in NCAA athletes. *Journal of Intercollegiate Sport*, 3(2), 316-332.
- Caro, C. (2012). College football success: The relationship between recruiting and winning. *International Journal of Sports Science and Coaching*, 7(1), 139-152.
- Clough, P., Earle, K., & Sewell, D. (2002). Mental toughness: The concept and its measurement. In I. Cockerill (Ed.), *Solutions in sport psychology* (pp. 32-45). London: Thomson.
- Connaughton, D., Wadey, R., Hanton, S., & Jones, G. (2008). The development and maintenance of mental toughness: Perceptions of elite performers. *Journal of Sports Sciences*, 26(1), 83-95.
- Coulter, T. J., Mallett, C. J., & Gucciardi, D. F. (2010). Understanding mental toughness in Australian soccer: Perceptions of players, parents, and coaches. *Journal of Sports Sciences*, 28(7), 699-716.

- Creswell, J. W., Hanson, W. E., Clark Plano, V. L., & Morales, A. (2007). Qualitative research designs: Selection and implementation. *The Counseling Psychologist, 35*(2), 236-264.
- DeBard, R. (2004). Millennials coming to college. *New Directions for Student Services, 2004*(106), 33-45.
- Deloitte & Touche, LLP (2014). 2013 Report of National Collegiate Athletic Association and Subsidiaries. Retrieved from www.deloitte.com
- Driska, A. P., Kamphoff, C., & Armentrout, S. M. (2012). Elite swimming coaches' perceptions of mental toughness. *The Sport Psychologist, 26*(2), 186-206.
- Dronyk-Trosper, T., & Stitzel, B. (2017). Lock-in and team effects: Recruiting and success in college football athletics. *Journal of Sports Economics, 18*(4), 376-387.
- Evans, N. J., Forney, D. S., Guido, F. M., Patton, L. D., & Renn, K. A. (2009). *Student development in college: Theory, research, and practice*. John Wiley & Sons.
- Flett, M. R., Gould, D. R., Paule, A. L., & Schneider, R. P. (2010). How and why university coaches define, identify, and recruit 'intangibles'. *International Journal of Coaching Science, 4*(2), 15-35.
- Fourie, S., & Potgieter, J. R. (2001). The nature of mental toughness in sport. *South African Journal for Research in Sport, Physical Education and Recreation, 23*(2), 63-72.
- Gayles, J. G., & Baker, A. R. (2015). Opportunities and challenges for first-year student-athletes transitioning from high school to college. *New Directions for Student Leadership, 2015*(147), 43-51.

- Giacobbi Jr, P. R., Roper, E., Whitney, J., & Butryn, T. (2002) College coaches' views about the development of successful athletes: A descriptive exploratory investigation. *Journal of Sport Behavior*, 25(2), 165-180.
- Gould, D., Hodge, K., Peterson, K., & Petlichkoff, L. (1987). Psychological foundations of coaching: Similarities and differences among intercollegiate wrestling coaches. *The Sport Psychologist*, 1, 293-308.
- Graves, K. (2008). Coaches look for more than just talent. *WBMAGAZINE* September/October, 26-27.
- Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2008). Towards an understanding of mental toughness in Australian football. *Journal of Applied Sport Psychology*, 20(3), 261-281.
- Integrity [Def. 1]. (n.d.). In Merriam Webster Online, Retrieved August, 2017, from <http://www.merriam-webster.com/dictionary/integrity>.
- Jones, G., Hanton, S., & Connaughton, D. (2002). What is this thing called mental toughness? An investigation of elite sport performers. *Journal of Applied Sport Psychology*, 14, 205-218.
- Jones, G., Hanton, S., & Connaughton, D. (2007). A framework of mental toughness in the world's best performers. *The Sport Psychologist*, 21, 243-264.
- Jowett, S., & Chaundy, V. (2004). An investigation into the impact of coach leadership and coach-athlete relationship on group cohesion. *Group Dynamics: Theory, Research, and Practice*, 8(4), 302-311.

- Jowett, S., & Cockerill, I. M. (2002) Incompatibility in the coach–athlete relationship. In I. M. Cockerill (Ed.), *Solutions in sport psychology*. (pp. 16–31) London: Thompson Learning.
- Kavekar, A., & Ford, S. (2010). Investigation of recruiting criteria of leading NCAA division I softball coaches. *Sport Journal*, 13(2), 1-7.
- Kindall, J., & Winkin, J. (2000). *The baseball bible*. Champaign, IL: Human Kinetics.
- Langelett, G. (2003). The relationship between recruiting and team performance in Division 1A college football. *Journal of Sports Economics*, 4(3), 240-245.
- Lincoln, Y. S. (1995). Emerging criteria for quality in qualitative and interpretive research. *Qualitative Inquiry*, 1(3), 275-289.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
- Middleton, S. C., Marsh, H. W., Martin, A. J., Richards, G. E., & Perry, C. (2004). Discovering mental toughness: A qualitative study of mental toughness in elite athletes [R]. Paper presented at the 3rd International Biennial SELF Research Conference, Berlin, Germany.
- Moustakas, C. (1994). *Phenomenology research methods*. Thousand Oaks CA: Sage.
- Nicholls, A. R., Polman, R. C. J., Levy, A. R., & Backhouse, S. H. (2009). Mental toughness in sport: Achievement level, gender, age, experience and sport type differences. *Personality and Individual Difference*, 47, 73-75.
- Packer, B., & Lazenby, R. (1999). *Why we win: Great American coaches offer their strategies for success in sports and life*. Chicago, IL: Masters Press.

- Rodgers, B. L., & Cowles, K. V. (1993). The qualitative research audit trail: A complex collection of documentation. *Research in Nursing & Health, 16*(3), 219-226.
- Sander, L. (2008). Have money, will travel: The quest for top athletes. *Chronicle of Higher Education, 54*(47), A1-A4.
- Sheard, M., & Golby, J. (2007). Hardiness and undergraduate academic study: The moderating role of commitment. *Personality and Individual Differences, 43*(3), 579-588.
- Sheard, M., Golby, J., & van Wersch, A. (2009). Progress toward construct validation of the sports mental toughness questionnaire (SMTQ). *European Journal of Psychological Assessment, 25*(3), 186-193.
- Spieler, M., Czech, D. R., Joyner, A. B., Munkasy, B., Gentner, N., & Long, J. (2007). Predicting athletic success: factors contributing to the success of NCAA division IAA collegiate football players. *Athletic Insight, 9*(2), 22-33.
- Taylor, S. E., Klein, L. C., Lewis, B. P., Gruenewald, T. L., Gurung, R. A., & Updegraff, J. A. (2000). Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review, 107*(3), 411-429.
- Terenzini, P. T., Rendon, L. I., Upcraft, M. L., Millar, S. B., Allison, K. W., Gregg, P. L., & Jalomo, R. (1994). The transition to college: Diverse students, diverse stories. *Research in Higher Education, 35*(1), 57-73.
- Thelwell, R. C., Weston, N. J., & Greenlees, I. A. (2005). Defining and understanding mental toughness within soccer. *Journal of Applied Sport Psychology, 17*(4), 326-332.

- Thelwell, R. C., Such, B. A., Weston, N. J., Such, J. D., & Greenlees, I. A. (2010). Developing mental toughness: Perceptions of elite female gymnasts. *International Journal of Sport and Exercise Psychology*, 8(2), 170-188.
- Van Yperen, N. W. (2009). Why some make it and others do not: Identifying psychological factors that predict career success in professional adult soccer. *The Sport Psychologist*, 23, 317-329.
- Weinberg, R., Butt, J., & Culp, B. (2011). Coaches' views of mental toughness and how it is built. *International Journal of Sport and Exercise Psychology*, 9(2), 156-172.
- Weissensteiner, J. R., Abernethy, B., Garrow, D., & Gross, J. (2012). Distinguishing psychological characteristic of expert cricket batsman. *Journal of Science and Medicine in Sport*, 15, 74-79.
- Young, J., & Pearce, A. (2010). Teaching mental toughness in tennis. *Journal of Science and Medicine in Sport*, 13, e44.

APPENDICES

APPENDIX A

COMPILATION OF MENTAL TOUGHNESS STUDIES

Authors	Participants	Characteristics	Definition (if created)
Fourie and Potegieter (2001)	131 South African coaches, 160 athletes who play provincial, internationally and nationally from 31 different sports.	Motivational level, coping skills, confidence maintenance, cognitive skill, discipline and goal directedness, competitiveness, possession of prerequisite physical and mental requirements, team unity, preparation skill, psychological hardiness, religious conviction, ethics	N/A
Clough, Earle and Sewell (2002)	elite rugby athletes	Control, commitment, challenge, confidence	Mentally tough individuals tend to be sociable and outgoing; as they are able to remain calm and relaxed, they are competitive in many situations and have lower anxiety levels than others. With a high sense of self-belief and an unshakeable faith that they control their own destiny, these individuals can remain relatively unaffected by competition or adversity
Jones, Hanton and Connaughton (2002)	10 elite international performers from different sports	Having an unshakeable self-belief in your ability, bouncing back from performance setbacks, having an unshakable self-belief that you possess unique qualities and abilities that make you better than your opponents, having an insatiable desire and motives, remaining fully focused on the task at hand, regaining psychological control after unexpected or uncontrollable events, pushing back the boundaries of physical and emotional pain, accepting competition anxiety is inevitable and knowing you can cope with it, not being affected by others good or bad performances, thriving on the pressure of competition, remaining fully focused in the face of life distractions, being able to switch a sport focus on and off as required	Mental toughness is having the natural or developed psychological edge that enables you to; 1.) generally cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on a performer and 2.) specifically, be more consistent and better than your opponents in remaining determined, focused, confident and in control under pressure
Middleton, Marsh, Martin, Richards and Perry (2004)	25 current and former elite athletes (6 are now coaches) and 8 non-athletes (management, sport scientist, coach and psychologist). The participants came from a variety sports in Australia	Self-efficacy, mental self-concept, potential, task specific attention, perseverance, task familiarity, personal bests, task value, goal commitment, positivity, stress minimization, positive comparison	Mental toughness is defined as an unshakeable perseverance and conviction towards some goal despite pressure or adversity

Thelwell, Weston and Greenlees (2005)	6 professional soccer players and mutually agreed upon by a wider professional soccer community (43 professional soccer players)	Self-belief at all times that you will achieve success, having the ability to react to situations positively, having the ability to hang on and be calm under pressure, having the ability to ignore distractions and remain focused, wanted the ball/wanting to be involved at all times, knowing what it takes to grind yourself out of trouble, controlling emotions throughout performance, having a presence that affects opponents, having everything outside of the game in control, enjoying the pressure associated with every performance	Mental toughness is having the natural or developed psychological edge that enables you to; 1.) always cope better than your opponent with the many demands (competition, training, lifestyle) that soccer places on the performer and 2.) specifically, be more consistent and better than your opponents in remaining determined, focused, confident and in control under pressure
Jones, Hanton and Connaughton (2007)	8 Olympic champions (4 retiring, 4 currently competing), 3 Olympic coaches and 4 sport psychologists	<p>Attitude/Mindset: unshakable self-belief, you can achieve what you set your mind to, punch through obstacles, desire, refuse to be swayed by short term gains, achieving sport goal is number-one life priority, ability to switch on and off from sport.</p> <p>Training: use long-term goals, patience, discipline and self-control, remain in control, not controlled, use difficult training environment to your advantage, love the parts of training that hurt, thrive on competition.</p> <p>Competition: total commitment, bouncing back from mistakes, focused on the task at hand in face of distraction, self-absorbed focus despite distraction, can focus on the process, killer instinct, raising performance when needed, love the pressure of competition, adapting and coping with change distraction or pressure, making correct decisions, coping with anxiety, awareness of thoughts and feelings, use difficult competition environment to your advantage.</p> <p>Post-Competition: celebrate success then move on to next challenge, know how to handle success, rationalize failure and learn from it, use failure for future success</p>	N/A
Gucciardi, Gordon and Dimmock (2008)	11 male coaches from Western Australian Football League and Australian Football League	Self-Belief, Work Ethic, Personal Values, Self-Motivated, Tough Attitude, Concentration and Focus, Resilience, Handling Pressure, Emotional Intelligence, Sport Intelligence, Physical Toughness	Mental toughness in Australian Football is a collection of values, attitudes, behaviors, and emotions that enable you to persevere and overcome any obstacle, adversity, or pressure experienced, but also to maintain concentration and motivation when things are going well to consistently achieve your goals
Butt, Weinberg and Culp (2010)	15 Division I athletes from a variety of sports USA	Performing under pressure, being motivated, positive psychological attributes, being a hard worker, anticipation skills, having leadership qualities	N/A

Coulter, Mallett and Gucciardi (2010)	4 elite soccer coaches, 6 A-league athletes and 5 of those athlete's parents in Australia	Winning mentality and desire, self-belief, physical toughness, work ethic, resilience, personal values, concentration and focus, performance awareness, sport intelligence, tough attitude, coping under pressure, competitive effort, risk taker, emotional intelligence and control	Mental toughness is the presence of some or the entire collection of experientially developed and inherent values, attitudes, emotions, cognitions and behaviors that influence the way in which an individual approaches, responds to, and appraises both negatively and positively construed pressures, challenges and adversities to consistently achieve his or her goals
Driska, Kamphoff and Armentrout (2012)	13 male and female elite level swimming coaches USA	See Jones et al. 2007 with added addition: Attitude/Mindset: Coachability Training: Retaining psychological control on poor training days	N/A

APPENDIX B

TEAR OFF COVERSHEET FOR RECRUITMENT QUESTIONNAIRE

Coach XXXXXXXXXX:

My name is Sydney Masters, I am a graduate student at Ithaca College, and I am a friend/ an acquaintance of XXXXXX, who has told me you may be interested in participating in my research. I am contacting you to request your participation in my research project that is required to complete my Masters degree. This study consists of completing a 5-minute questionnaire as well as an interview. If an interview is something you wish to do, please provide your email information at the end of the questionnaire. If you meet my eligibility criteria, I will contact you to schedule an interview.

If you do not want to participate or want to discontinue the questionnaire, you have the right to decline or exit at any point. You may skip questions, withdraw or decline without penalty. By clicking the link below, you consent to providing any requested information. The information will only be seen by myself and my thesis advisors.

By clicking this link I am stating that I am 18 years of age or older.

https://ithaca.qualtrics.com/SE/?SID=SV_cG4k3DBBWS1sE9T

Your input will not only impact the field of sport psychology and my research study but it can also provide insight and reflection into your own recruiting methods.

Thank you for your time and consideration. If you have any questions do not hesitate to reach out, either by phone or email.

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APPENDIX C

INTERVIEW RECRUITMENT COVERSHEET

Coach XXXXXXXXXXX:

This is Sydney Masters and I wanted to extend my congratulations! I am contacting you because you have met the study criteria from the recent questionnaire and you have indicated an interest to participate in an interview.

The interview will be about 30-60 minutes in length. I will ask you about the psychological factors that contribute to your recruiting process. If you would like to participate in this interview, please reply to this email and indicate what day or times you would be available along with a preference for an in person, or over the phone interview. Please block off 60 minutes for this interview so that there are minimal distractions and interruptions.

If you do not want to participate in the interview anymore, please respond to this email stating you would no longer like to continue and I will remove your name from my list.

Your input will not only impact the field of sport psychology and my research study but it can also provide insight and reflection into your own recruiting methods.

Thank you for your time and consideration. If you have any questions do not hesitate to reach out, either by phone or email.

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APPENDIX D

INFORMED CONSENT FORM FOR PARTICIPANT'S INTERVIEW

Division I Coaches Perceptions of the Recruiting Process

- Purpose of the Study
The purpose of this study is to determine what factors coaches' value and use to make recruiting decisions.
- Benefits of the Study
The benefits of this study include reflecting upon the impact of your own recruitment practices. Your participation in this study would also expand the knowledge of recruitment practices in coaching and sport science related research.
- What You Will Be Asked to Do
The interview will begin with one question and you will be able to elaborate as much or as little you feel is necessary to answer the question. You will be asked follow up questions based on your answers. The interview will take approximately 30 to 60 minutes to complete and you will be audio-taped. To be included in the study, you must have two or more years as a primary recruiter at the Division I level.
- Risks
Coaches will be asked to explore their own recruitment process and their perceptions of characteristics of the athlete they are considering to recruit. Coaches will not be asked to reveal actual recruitment strategies therefore there is a small associated risk with this study.
- If You Would Like More Information about the Study
If you would like to know more about this study please contact Sydney Masters ([814-222-0273](tel:814-222-0273)/smaster1@ithaca.edu), or the faculty supervisor, Justine Vosloo PhD, Associate Professor, jvosloo@ithaca.edu.
- Withdraw from the Study
You do not have to participate in the study if you do not want to. If you do not wish to finish the interview at any point, there will be no penalty.
- How the Data will be Maintained in Confidence
The interview will be confidential. There are many methods in which your confidentiality will be ensured during the interview process. For example, once the interview has been completed and transcribed, the transcription will be associated with a number (e.g. Coach #1) instead of your name. Only the researcher will know your number and see your responses. When the results are made public, any personally identifiable information will not be included. The survey program, Qualtrics, is username and password protected. All data provided on the questionnaire, audio files and transcriptions will be securely stored on a password protected computer in the faculty supervisor's office on the Ithaca College campus. Only the researcher and faculty supervisor will have keys to the room. The data will be destroyed 3 years after the data collection process is complete.

I have read the above and I understand its contents. I agree to participate in the study. I acknowledge that I am 18 years of age or older.

Print or Type Name

Signature

Date

I give my permission to be audiotaped.

APPENDIX E

RECRUITMENT QUESTIONNAIRE

1. Would you consider yourself to be a primary student-athlete recruiter for your team?
 - Yes or No
2. What is your age?
 - Fill in option
3. Which gender do you most identify with?
 - Check one: female, male, other (fill in option)
4. Which ethnicity or race do you most identify with?
 - Check one:
 - Non-Hispanic white or Euro-American
 - Black, Afro-Caribbean, or African-American
 - Latino or Hispanic American
 - East Asian or Asian American
 - South Asian or Indian American
 - Middle Eastern or Arab American
 - Native American or Alaskan Native
 - Other (fill in option)
5. How many years have you coached at the NCAA Division I level?
 - Fill in option
6. What sport do you currently coach at the Division I level?
 - Fill in option

7. While recruiting throughout a typical year, how much contact time do you have with one potential recruit? Contact time includes: phone calls, in person visits, emails etc.
 - Choose one: (0 hours; 1-5 hours; 6-10 hours; 11-15 hours; 16-20 hours; 21-25 hours; 26-30 hours; 31+ hours)
8. Do you recruit for “intangible characteristics” in potential athletes, not just skill or talent?
 - Choose one: Yes, No, Other (fill in option)
9. Please check yes or no, if you would like to be considered for an additional interview to help with this research.
 - Choose one: Yes or No
10. If yes, please provide an email address where you can best be reached:
 - Fill in option

APPENDIX F
INTERVIEW GUIDE

1. “Setting aside physical attributes, skills, talents and academics, what do you look for in potential recruits?”
 - o Tell me more about...
 - o Describe what does _____ mean?
 - o What would _____ look like?
 - o What was that experience like?

APPENDIX G

REFLEXIVITY STATEMENT

The researcher's theoretical framework for this study begins in the discipline of psychology, more specifically sport and exercise psychology. The researcher was a Division III soccer graduate assistant and was a student-athlete recruiter. Through many observations at tournaments, there seemed to be limited time to watch the student-athletes play, sometimes as little as 15 minutes for a couple times over an academic year. To the researcher, that amount of time seemed inadequate in order to accurately observe the skills and talents of athletes. More importantly, how is a coach supposed to fully understand who the athlete is as a person and how they would fit in their athletic program?

From these curiosities came questions and many conversations with other Division III coaches. Mainly, the most intriguing question was "at this level, to stay relevant, do you recruit for skill or do you recruit for the person?" A lot of coaches had trouble answering that, but mostly they agreed that they were recruiting for skill. However, at the Division III level, resources are limited for recruiting and, more often than not, when the talent is high in an athlete, the coach may lose them to a higher division where athletic scholarships are given.

Since Division I programs are under higher pressure to win, it is important to recruit the top skilled players in regards to the specific sport. This is evident in Division I men's basketball and football, where intense media coverage and threat of revenues decreasing adds pressure to win games. Division I programs have the luxury of having more time in contact with an athlete, being able to watch them from a much younger age,

and having the ability to recruit the most talented student-athletes. The researcher questioned, taking the ability to recruit skilled players out of the equation, what else are coaches looking for in their athletes, if anything? By understanding that it is possible to develop an athlete's mental toughness and recognizing traits of mental toughness, coaches and recruiters can seek out athletes who will better reach their potential and become the best possible athlete for their program. These proposed questions led the researcher to pursue this specific research topic.

APPENDIX H

THEMES, SUB-THEMES AND INITIAL CODING

THEME ONE: THE RECRUIT AS A PERSON

Sub-theme One: "What's the kid gonna be like when he comes away from home?"

Character (Participants 1.2.3.6)

- **Character**
- **Character** (How do they act when no one's around)
- **Character** (What's the kid gonna be like when he comes away from home)
- **Character** (like character)

Personality (Participants 2.4.6)

- **Personality** (Coach wants to know what you like as a person (i.e. music, sports etc.)
- **Personality Traits** (Personality traits that you're looking for, you're looking for someone that has a strong personality) **No ego** (ego sometimes gets in the way of a lot of things)
- **Type of personality** (you want like a big personality to come to your program)

Discipline (Participant 6)

- **Disciplined** (you aren't supposed to yell at the refs but you still do but (giggles) you can be disciplined and control that knowing that's not the proper thing to do even though you want to yell back, that's the wrong call- and you can tell they aren't as mentally tough as other players or as disciplined as others)

Mature (Participant 5)

- **Maturity** (Junior year like kids are mature enough- They're thinking they're future minded, that long term- they're involved in the process) they have to be ok with structure in their day

Honest (Participants 1.6)

- **Honest**
- **Honesty** (if they are honest- if someone exaggerates about a tournament- having kids that give you honest answers)

Responsible (Participants 3.4.6)

- **Seek out Responsibility** (How they handle responsibility when its given to them, I'm gonna have to ask him to apply, I'm gonna have to ask him to call me at a specific time or ya know whatever that is and how quickly he gets those things done; How they deal with responsibility especially in times of adversity)
Accountability for what the recruiting process looks like (Accountable and take responsibility for the process) **Accountability for his own actions** (If he makes a mistake is he the kid that says your right coach I made a mistake; Is he the kid that's like it wasn't me it was somebody else's fault or it was the teachers fault or the professors fault)
- **Learned responsibility** (Somebody who's had a job before coming to school. I think that speaks more towards the individual learning responsibility) **Takes responsibility for actions** (It became all about you guys "need to help me" as

opposed to him taking responsibility, you know everything was somebody else's fault, ya know if the kids blowing his coach off because he doesn't want to take responsibility for something)

- **Taking Responsibility for their Actions** (and the players not taking enough responsibility- didn't really apologize and then the kid ended up calling me because she found out about it and in her- make their daughter take responsibility for themselves explanation again it was kinda very laid back and not quite take responsibility so and it wasn't as honest as it could have been and it was full of excuses.) **External Blame** (she blames the coach for anything that has to do with the tournament or a loss)

Selflessness (Participants 1.4.6)

- **Thinks of the team first** (Play for one another, Selflessness, Selfless)
- **Puts the team first** (Its not about the individual on the teams, it's about the team **An unselfish athlete** (When I watched his team every time they got in a tough situation where they were down 3,4,5 points particularly towards the end of a game he became the most selfish player, Much more selfless)
- **Unselfish** (be unselfish)
- **Sacrifice**
- **Sacrifice** (People have to sacrifice and be willing to give things up in order to be successful in those types of situations)
- **Sharing the responsibility when playing** (Where in volleyball, there's three contacts a side and I can't have all three of them so somebody else has to have a more of some of the contacts so it's really a shared responsibility)
- **Sacrifice** (And your volleyball is going to come ahead of clubs your involved in um trips you want to go on with different clubs - So you've got to be willing to make those sacrifices social so you can be really good for the team.)

Dedication (Participants 3.5)

- **Dedicated**
- **Dedication** (we want someone who really wants to be good a volleyball. Like volleyball has to be high on their list of priorities.)
- **Determination** (determined individuals)
- **Passion**
- **Pride** (People that take pride in what they do)

Curious (Participant 5)

- **Curiosity** (we want them to be curious, ask questions and kind of challenge us as coaches to really understand what we're teaching and why we're doing what we're doing because it helps them understand things better- we want them to ask why, we want them to ask questions.)

Sub-theme Two: Integrity

Integrity (Participants 1.2.3.6)

- **Integrity** (Does the right thing)

- **Integrity** (Does the right thing)
- **Integrity**
- **Integrity** (have good integrity)

Trustworthiness (Participants 1.3)

- **Trustworthy on and off the court; Doesn't get into trouble with the law or in school**
- **How he will behave in the university** (Is he going to come to school to party, Is he gonna come to school to get focused on an education?, To cause problems, is he going to be a kid that's stealing stuff on road trips?)
- **Wants loyalty to coaching staff** (Athlete to be an extension of the coach- essentially back up what the coach is saying behind closed doors, Trust in the coaches)

Credibility (Participant 6)

- **Credibility** (if your individual actions don't back up what are coming out of your mouth then you have no credibility, But if they are seeing from you what you're talking about then that's when they're like ok let's try this.)

Sub-theme Three: Work Ethic

Work Ethic (Participant 1.2.3.4.6)

- **Consistent hard work ethic** (High work ethic across all aspects of life, Makes effort plays)
- **Work ethic** (Hustle, Working hard because they want to get better not just because coach is watching, Work ethic as the driver of getting better at skills over months)
- **Work extremely hard to continue to improve**
- **Work Ethic** (really got to be a hard worker)
- **Hustle/Work ethic** (pretty much running back and hustling to make the next play- and work hard for other people)

Desire to be Excellent (Participant 3)

- **Desire to be excellent** (Excellence in all areas of life; Looking for kids that want to be excellent across all areas in life)

Academically minded (Participants 1.2)

- **Good Students**
- **Academically oriented** (Uses baseball to further education)

Time Management (Participant 5)

- **Ability to time manage** (DO they volunteer in organizations and clubs, that kind of thing. Because if they can manage all that stuff at one time, they can manage coming to school and being a volleyball player, student and have their military responsibilities- we do look at the community service part)

THEME TWO: "I DON'T WANT A LOT OF DRAMA": THE RECRUIT'S

INTERACTIONS WITH OTHERS

Sub-theme One: Observable Interactions with Teammates and Coaches

Interactions with teammates (Participants 1.2.3)

- **Interacts well with teammates**
- **Interactions amongst teammates** (Kid interacts with the rest of the team during a game)
- **How they interact with teammates and others** (The way they talk to their teammates;
The way they behave; How they interact with other people; How they interact on the field) **How teammates interact with him** (What happens when ya know they score a goal? How do they behave are they celebrating by themselves, do their teammates come over? Like all those kinda little things point you towards what the kids like and how well he's like and what kind of kid he is)
- **No issues off the field with other athletes** (I don't want a lot of drama)
- **Interactions with people during adversity**

Interactions with coaches (Participants 4.5.6)

- **How an athlete interacts with their coach** (kinda tell watching a player interact with his coach ya know in a time out when they're down or something like that, what his mindset is. I mean you can tell just looking at somebody is he participating in this conversation, is he checked out?) **He is the same person every time he interacts with his teammates or coaches** (how they interact with their teammates and their coaches. Yea know the good times and bad times, is there a change in demeanor when their interacting. Ya know the more that demeanor stays the same across the board, that's an important quality that we look for)
- **Coach Interactions** (How they interact with their coaches)
- **Interactions with Coaches** (do they yell at their coaches, do they talk back to their coaches little,)

Attitude (Participants 1.5)

- **On Court Attitude** (overall attitude I think positivity's a good word to say- that are like cheerleaders, super peppy and excited all the time. We have other kids that are pretty even keel but still positive and mentally tough if you wanna call it that)
- **Shows positive on the field or at bat**

Sub-theme Two: Observable Interactions with Parents

Observable on field interactions with parents (Participants 1.2.5.6)

- **Interacts well with parents**

- **How they treat their parents and authority figures in their lives** (How the parents and kid interact during school visits, How the student deals with his parents when he comes off the field) **Respecting authority** (allows him to understand if they can be coached by college coaches, Athletes gives respect)
- **What people want, they show more in their body language and behavior** (Kids that are dressed nicely for the visit, that they recognize that they're in an interview process that they are going to be judged, those are the kids usually that have the most success; You've got freaking headphones on, in or around your ear, you're quiet the whole time, your parents are talking the whole time, I'm getting nervous; It can be a body language thing; it doesn't have to be a body language thing.)
- **Parental Interaction** (I watch how they interact with their parents and their coaches because that will tell you a lot about a kid- more respectful. I'm gonna recruit that respectful kid over the kid that's kind of immature who doesn't treat their parents well.)
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- **Interaction with Parents** (the way they interact with their parents -carefully if they're respectful to their parents. If their parents allow them to talk for themselves or think for themselves. -if they don't, if they talk back to their parents or are disrespectful they're certainly going to do the same to me. And then yeah oh just if the parents so attached... - then in terms of babying, I'll watch players after they finish like if the mom is running over to give them Gatorade or carrying their bag for them or other little things like you can see the parents are right there to coddle them)

Upbringing/family situation (Participants 2.3.4.6)

- **Upbringing** (No entitlement, Where they come from, No overbearing parents)
- **Where the student-athlete comes from** (What their background is)
- **No entitlement** (Entitled individuals do not fare well in collegiate athletics)
- **Familial Situation** (I really pay attention to the family, -I want a recruit that has two parents. -think unfortunately recruits that come from divorced families come with a lot of other baggage) **Sibling Order** (Then I actually look at where they fall in their sibling order. I won't recruit only children.- I think they Sometimes are more selfish and self-centered and the parents are more likely to be more helicopter parents for only children -the sibling order determines their personality and leadership skills and competitiveness)
- **Plays multiple sports**
- **Competitiveness** (it when their little sisters and two big brothers beat up on them and toughen them up and tell them to be competitive. So those little family things help if the little sister)

Parental involvement in recruiting process (Participants 3.4.6)

- **Level of parents involvement in recruiting process** (A red flag to me is when the parents want to be heavily involved; The parents I have more success with in the recruiting process are the ones that push the player to interact and ask questions and to be thoughtful with their responses; Parents that are extremely, I

guess, aggressive or kind pushing their kids in one direction I think tend to be a turn off because typically when that kids gets away from that parent's style they're going to struggle for motivation more)

- **Parents giving positives and negatives about their children** (they are telling you all the positive things about their young children ya know but are they telling you some of the negatives? And that's what we wanna hear, we wanna hear both sides of it, so they're not like oh my child's the best thing ever, they've never done anything wrong. Those are actually the kids I like to stay away from)
- **Level of involvement of parent in recruiting process** (and sometimes if the kid could care less, its often an indicator they may not be as successful in their academics because even though the parent cares a lot, the kid could care less about academics and that's something you have to be careful about. - if I get a lot of email from the parent or phone calls from the parent, not the player that's usually a good indicator for me that the parents doing too much work- indicator if they're going to be helpful and supportive of the coach or second guess every move the coach makes.)

Sub-theme three: Gaining Information from Outside Sources

References (Participant 3)

- **References** (I like to meet their parents and anybody else that's close to them just to get a sense of how they behave or what they interact like)

Information from high school/club coach (Participant 4)

- **Seeking out information from a coach after a game of how the athlete handled a specific situation** (Typically after I watch a situation unfold. Ya know something happened in the course of the match I want to talk to that coach later about that event and say "what happened there")

- THEME THREE: DESIRED COMPETITION BEHAVIORS

Sub-theme One: Recruit's On field Behaviors

Competitiveness (Participants 2.4.6)

- **Competitiveness** (Compete, Knows how to win, How into the game (any game but baseball) shows (the coach) how competitive he is) **Mentality of every game is important** (Consistency of investment from game to game, If athlete isn't fully invested they'll never get to their full potential which means the team won't get to their full potential)
- **How they go about their business competing** (And even if they don't win, it's about how they go about their business competing, I define success is for the guys it's not about winning or losing ya know it's about competing and by competing I mean we're going to play as hard as we can, as well as we can for as long as we can.)

Leadership Qualities (Participants 1.2.3.6)

- **Leadership qualities** (Leading by example, Vocal leadership)
- **Leadership qualities** (Willingness to confront coaches behind closed doors)
- **Leadership** (You're looking for leaders at all times; Does he lead his teammates; Does he make the people around him better; How do you pull other people to respond with you)
- **Leadership Qualities** (the oldest sister, usually they come with good leadership skills and good patience dealing with the younger siblings- I think leadership qualities if they're the captain of their team if the coach relies on them in a way that they know the players dependable-. well respected from their teammates)

Being a good teammate

Good teammates (Participants 1.6)

- **Guys who get along with each other**
- **Good teammates** (going to be good teammates,)
- **Loyalty to Team**

Brings team together during competition (Participants 1.4)

- **Brings team together** (Huddle their team up)
- **An athlete who can bring teammates together** (Its more about bringing people together, I want the guy that we're down 5 or 6 points and he's pulling his team together)

Sportsmanship (Participant 6)

- **Sportsmanship** (bad sportsmanship- following rules- there's little things you can get away with but there not the most respectable things to do)

Self-expression (Participant 3)

- **How a student-athlete expresses themselves physically on the field either with play or physical appearance** (Expressing yourself through your ability not through what you're wearing; Want to express themselves in way that don't effect performances; Is he all about himself just based on the way he looks and carries himself or is it a team thing?, What's the kid's hairstyle like, what shoes does he wear?)

Sharing Responsibility when playing (Participant 4)

- **Sharing the responsibility when playing** (Where in volleyball, there's three contacts a side and I can't have all three of them so somebody else has to have a more of some of the contacts so it's really a shared responsibility)
- **An athlete who is trying to do everything on the court which indicates lack of trust** (when you multitask individual responsibilities get neglected and you need to be worrying more about what you need to be responsible for- when you don't trust your teammates you try to do more, And if he's checked out that basically means he doesn't trust the person that's talking to them and trust is maybe the most important factor in terms of both between players on the court and the players and the coach because if you don't trust your teammates then you start to do more than what you should probably and that just leads to bad things)

Sub-theme 2: Demonstration of Psychological Skill Use

In control of emotions (Participants 1.4)

- **Staying poised**
- **Appearing/being calm** (if its more about calmness and I can stay calm, I can exude that calmness and people will buy into that, and he's going hey let's just settle down ya know lets relax its just pass set hit ya know it's a simple thing and then goes out there and coolly and calmly handles his business,) **Volatility** (I don't want anything to do with somebody that's gonna have that volatile personality there's just no place for that) **Being in control of their emotions** (it's not about him being emotional its almost, he just lost it, that's an example of somebody that's being controlled by his emotions instead of being in control of his emotions, high stress environments so if you don't have a good reign on what's going on with you emotionally then those are those situations that you're just going to melt down.

Handle pressure (Participants 4.6)

- **Being able to handle pressure** (Initial contact that you get is pretty critical to the success of the next contact. So there's more pressure on those contacts, **Being able to handle the pressure of delivering a good ball** (A setter clearly, the guy that's delivering the ball to the attacker ya know the attacker is very heavily reliant on his ability to deliver a good ball so there's always going to be a lot of pressure on that person))

How an athlete handles feedback (Participants 4.5.6)

- **Receives criticism well** (if the player can kind of manage his interaction and accept it as a teaching moment not as a situation where my ego's getting crushed, and not take it personally that's kinda what I'm referring to, when you're teammate comes up to you and says hey lets go, it's not about you suck, you need to play better, its more about hey I'm your teammate and I'm trying to pick you up. And the more you see that on a regular basis the better those kids are going to manage the high stress situations because it becomes a much more of a "this is what we do" ya know it's not out of the ordinary for this situation to happen.) **Listens to the coach when the coach is making adjustments indicates trust** (When you don't trust your coach, you don't make the adjustments that he's trying to make and it's not that every coach is great and can't make mistakes but the bottom line, there has to be that trust there, or he just doesn't trust his coach, that's a bad indicator to me.)
- **Coachable** (are they coachable?- do they listen)
- **How a player handles feedback from a coach** (pretty much the coach was yelling out instructions and was not happy with a player and just, like if the player can take it and physically, you kind of have to look at their facial expressions and if you can tell if they're totally flustered then they can't handle that kind of coaches)

How an athlete handles adversity (Participants 1.2.3.4.5.6)

- **How athlete handles adversity** (How they handle when referee makes a bad call, How they handle being benched by their coach) **Moves on quickly from mistakes** (Not bothers from things that happened in the past)

- **How they deal with non-success** (How they handle striking out on a bad call, How they react in certain situations)
- **Tough enough to deal with amount of games and types of travel** (You're gonna be playing three games a week how do you deal with that on a physical sense, how do you put yourself through that stuff emotionally; Are you tough enough to deal with the situation that they're gonna be put in) **Ability to move past bad calls** (There's gonna be referees who make bad decisions do you move on to the next thing, are you hung up on what just happened? What happens when a referee calls a foul against them?) **Types of reactions the student-athlete has in positive and negative situations** (How does he react when things aren't going well? How does he react when things are going well?; When the referee makes a good decision or a bad decision, I recognize the decision and I recognize the player's reaction; Everyone is looking for a response to adversity; How do you deal with those things in the sense of are you frustrated, are you in the referee's face?; Their reaction is tied pretty closely to how much they've invested in what they're doing; How do they react in certain situations? Do they want to win, do they want to lose, does that matter to them, do they care? In a sense some kid's reactions are high maintenance or for show. Some kid's reactions are genuine and you kinda get a sense just based on how you read into that kid's ability.)
- **How does he handle adversity** (I like to see teams when they get in a tough situation. When they are playing some team and they get down and it's towards the end of the game that's when I learn the most about these guys. How do they react under those circumstances ya know if their beating somebody badly everybody plays well in those circumstances so you don't learn anything ya know it's the guy that manages things and handles things, How your son's team wins or losing isn't relevant to me , it's more about how things unfold over the course of that- that I pay attention to)
- **Ability to bounce back** (Um to be able to have some resiliency and that can be expressed different ways.-Do they put their head down or do they bounce right back and want the ball back?-How well does someone recover from making mistakes?- recovering from a mistake or recovering from a bad test. Maybe you had a bad test in school and you have to come to practice and you gotta forget about your test. Move on from your day do something better with your practice.) **Reactions to game play** (I'll watch a kid on the bench. Let's say she gets pulled or she's not starting, how does she act on the bench? Is she a pouter and just silent or is she cheering for her team and involved in the game still.)
- **Bouncing back from bad calls** (and not letting a bad call kind of emotionally effect a player) **In game responses** (if they're cheering in the middle of the game, how they react to bad calls um do they yell at the refs- with some players will get a bad call and drop their shoulders and they look down physically they allow their body look disappointed- guess a neutral reaction)
- **Growth mindset** (Willing to grow; What is their mindset; People that just want to grow' Who's mindset is focused on growing)

Handles challenges (Participants 4.5.6)

- **Enjoys challenges** (They want to challenge, they enjoy the challenge) **Embraces Challenges** (You need guys that are willing to embrace challenges)
- **Welcomes challenges** (be able to be challenged, want to be challenged -Do they want to be pushed?)
- **Can handle challenges** (You can't, you can't talk your way out of things. If you're out there on the field or you're doing a run test or exercising for three hours of the day you just can't fake it and talk your way out of things that we put them through such a difficult regime of exercise they either learn to handle the challenge or they quit.- how do they handle challenges if they have anxiety)

Communication (Participant 1)

- **Productive Communication** (Communicating positively)

Role Acceptance (Participant 1)

- **Accepting and executing given roles**

Confidence (Participant 2)

- **Self-confidence**

Decision Making (Participant 3)

- **On field Decision-Making**

Mental Strength (Participant 4)

- **Mental Strength** (You need some guys that are mentally strong to handle some of the positions that require most of the contacts)

In the Moment (Participant 4)

- **An athlete whose mind is in the moment indicated by not being tentative** (fear creeps in and starts making you tentative in your activities that's because you're afraid of losing. Where if you can just focus on the process of the play, the next contact that I have to be responsible for, you don't have time to think about that and it lets you play freer or looser)

THEME FOUR: FIT WITH PROGRAM

Fit with program (Participants 2.3.4.6)

- **Desire to play for their program** (If the kid flies from California to see the school shows the guys wants to be a part of this program (guy that's looking at us for the right reasons) **Head coach style of coaching matches how the kid wants to be coached** (Personality that fits with the style that they coach) **Fit into culture** (Fit to team)
- **Recruiting is about fit** (What the school has; What the social scene at that place is and then what they are looking for academically)
- **Fit to program and coaches** (They need to fit in here, they need to fit with the program and the coaches specifically)
- **Athletes from good coaching programs** (again we are looking for players that are coming from good coaching programs- come from a strong program where the coach is tough on you and demands a lot they are going to be better prepared for the demands of division I)