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Coaching Styles, Athletes' Needs Satisfaction, and Identity: An Analysis of Athlete-Coach Relationship

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ABSTRACT

Through the use of the self-determination theory (SDT), developed by Edward L. Deci and Richard M. Ryan (2000), this study examined the various coaching styles and the relationship between both coaches' and athletes' identity. Thirty-two head coaches and 202 athletes from universities and colleges were surveyed. Coaches were matched with their athletes, producing 28 unique pairings. The first research question tested for coaching styles and how they connect to motivations. The second research question explored the coaching styles and how they relate to athletes' motivations. A hypothesis examined differences between coaches' reported coaching styles and their athletes' needs. Results found that both coaches and athletes reported more internal motivations related to their needs and styles. Related factors found a significant difference between coaches' competence and autonomy and athletes' competence and autonomy. Implications for the athlete-coach relationship, their communication, and SDT in sports are discussed.

Coaching Styles, Athletes' Needs Satisfaction, and Identity: An

Analysis of Athlete-Coach Relationship

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Master of Arts in Communication

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To my family, Rocky Huff, Debra Huff, Keelee Huff, and Samuel Jenkins. They have continuously been a solid support system throughout this entire process. I dedicate my work to them. Thank you for listening to me and supporting me even when I doubted myself. Thank you for praying with me and for me, even when I didn't ask for it. Most of all, thank you for continually reminding me that the end goal was worth it and that no matter what, you would always be proud of me. If it weren't for you, this process would have seemed impossible. So as much as this is an exciting end for me, it is also one for you. Thank you for choosing to love me and support me through such an important milestone in my life.

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CHAPTER I

INTRODUCTION, REVIEW OF LITERATURE, AND RESEARCH QUESTIONS

Coaches have a job; most are paid to win. Athletes have a job; most are paid to perform regardless of scholarship or stipend. Together they create this relationship, a type of feedback loop that works off of one another. Overall, the athlete-coach relationship and communication is something that occurs regardless of the situation. This communication is not something that ends when practices and games are over; it is relational and internalized. This internalization affects one's identity more than one may think. As such, this study is a first step in exploring the possibilities and limitations for the communication within the athlete-coach relationship. Specifically, this research uses self-determination theory (SDT) to better understand the athlete-coach relationship and their communication. It does this through athlete-coach dyads as the basic unit of analysis answering a shortfall in the research (Rocchi & Pelletier, 2018).

First, this research will cover why sports are a huge component to society. It outlines a billion-dollar industry that is continuously invested in for various reasons. The major investment is based on the coaches and athletes. Secondly, through the use of SDT, athletes and coaches as individuals are discussed in regard to their needs, styles, and motivations. It utilizes the coaches' motivation questionnaire and the psychological need satisfaction and exercise scale. They were sent out to coaches and athletes at various colleges and universities. This study researched two questions and one hypothesis. The first research question was based on coaches' styles and identity. Research question two

was based on athletes' needs and identity. The hypothesis studied the correlations between coaches' styles and athletes' needs.

Sports and athletics play a huge role in society, from play to fandom. The rising number of fans all over the world for multiple sports solidifies the increasing importance of sports and fan motivation (Pope, 2012). In his article, Sawe gave a list of the top 10 sports, according to the number of fans. Here are just some of the breathtaking numbers: soccer recorded 4.0 billion fans, cricket recorded 2.5 billion fans, field hockey recorded 2 billion fans, and tennis recorded 1 billion fans (Sawe, 2016). With just four of the sports mentioned, it is hard to fathom how many more people there are that are fans of other sports. These numbers put into perspective the idea that sports effects not only the coach and the athletes but also fans. Worldwide there is great number of people connected to this unique community.

Narrowing down to U. S. markets, a quick look at the increase in television broadcasting, sales of sports equipment and team paraphernalia, and even betting on teams, there is huge money in play. An unimaginable $100 billion was recorded to be spent on sports by an American poll in 2017 (Egan, 2017). In 2017, $56 billion were spent on just attending events (Kutz, 2017). During this same time, a whopping $33 billion were spent on sports equipment and another $19 billion spent on gym memberships (Kutz, 2017). Does this come as a surprise though? Just think about the types of events and celebrations held before and after competitions. Reflect on all of the tailgating before and after football games, for example. The number of RV's and buses that pull in early in the mornings for a 7:00 pm kick-off is immense. All the food, drinks, and merchandise sold for universities and professional sports is unimaginable. And for

what purpose? For the collection and comradery of people, either in one place or watching over the TV, to cheer on their favorite teams, athletes, and coaches. With that said, all of these numbers link back to identity and how they connect to this special community.

Similarly, large numbers can be found for non-professional participants. As of 2017, an estimated 41 million youth throughout the USA participated in sports every year, resulting in hundreds of thousands of coaches (Brinton, Hill, & Ward, 2017; Coaches and Scouts, 2019). In an article written by Emily Barone, a news writer for *Time* Magazine, she explores the copious amounts of money spent on youth sports. It was reported in Utah two years ago that "an average family spends $2,292 per year on sports" (Barone, 2017). In another news article it was stated, "nearly 20% of USA families spend more than $12,000 a year…per child" (Shell, 2017). This is causing families to realign their budgets and even travel plans all just to play sports; the money needed for sports crimps all other areas of the lives of these families. Clearly, this says something to the significance of just how important sports are in our society. Roughly a decade ago throughout the U. S., there were 7.6 million students that played sports (Koebler, 2011). More recent estimates have high school numbers close to 8 million student-athletes; of these, 495,000 will play at the collegiate level (NCAA, 2019a).

As can be seen above, there are many ways to measure how impactful sports really are in society. A wide variety of research has been done to quantify the importance of sport in society (Andreff, 2008). Not only are they important for the obvious reasons such as health and wellness, but they add a plethora of value to other areas of life. They enhance physical and mental well-being of participants and integrate social classes and

communities (Macri, 2012). One could even go as far in saying that they add value to political agencies in attempts at building morality and ethical foundations, especially when governed by international bodies (Macri, 2012; Sawe, 2016). It provides an avenue to gain vital exposure to sensitive topics of this world such as racism, sexism, and classism. There has become a sort of standard that sports fill for both spectators and consumers. Sports not only benefit those that are involved ; they also have a huge impact on the community and identity. As these factors adapt and work together, there are many relationships that form. Critical to all of this is the athlete-coach relationship.

Athlete-Coach Relationship

With coaches spending so much time with their athletes, it is important to understand that coaches not only have an impact on their athletic skill, but their psychological development as well (Brinton, Hill, & Ward, 2017). From the athletes' view, Mageau and Vallerand (2003) state, "although many factors may impact athletes' intrinsic and self-determined extrinsic motivation, the athlete-coach relationship is one of the most important influences on athletes' motivation and subsequent performance" (p. 884).

The athlete-coach relationship and communication is something that is inevitable and occurs daily. This communication is not just something that stops once practice or game time is over. It runs deeper than that; it becomes an identity. Even further, this identity is what researchers say influences motivation and performance for both coaches and athletes (Mageau & Vallerand, 2003). With that said, there is no one way to coach. Sometimes the styles that coaches possess are interchangeable, but for the most part coaches generally are dominant in one style. Now, depending on the group of athletes a

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coach has, they may take a different approach. Not every style works for certain athletes. Especially if you have a team full of athletes who cannot identify with a certain style, the coach may need to change their approach. However, regardless of how good a coach is, athletes have to be able to embrace their style for the relationship to be successful (Knight, 2011).

Regardless of age or level of sport, there are a multitude of coaching styles that can be adopted. With each style comes a great number of actions and behaviors, each one affecting each athlete differently. There are two broad interpersonal styles, commonly referred to as autonomy supportive and controlling (Bartholomew, Ntoumani, & Thogersen-Ntoumani, 2010; Mageau & Vallerand, 2003).

Autonomy-Supportive Coaches

Coaches who use this style offer meaningful choices to their athletes (Katz & Assor, 2007). They take away most of the pressure and stay away from super authoritative behaviors (Black & Deci, 2000). They allow their athletes to participate in making decisions and they acknowledge the athletes' feelings (Deci, Egharari, Patrick & Leone, 1994; Deci, Koestner & Ryan, 1999). Ultimately, this style "actively supports self-initiated strivings and creates conditions for athletes to experience a sense of volition, choice, and self-endorsement" (Bartholomew, Ntoumani, & Thogersen-Ntoumani, 2010, p. 194). SDT supports the idea that autonomy supportive coaches "enhance the athletes' self-determined motivation because it contributes to the satisfaction of their psychological needs" (Bartholomew, Ntoumani, & Thogersen-Ntoumani, 2010, p. 194).

Controlling Coaches

As with autonomy coaching, controlling styles come with interpersonal aspects that play a huge role in shaping not only performance but the psychological experiences that athletes identify with their coaches and their sport (Vallerand & Losier, 1999). Coaches that have this type of style have a more coercive, pressuring, and authoritarian way of imposing certain standards on their players (Bartholomew, Ntoumani, & Thogersen-Ntoumani, 2010). According to SDT, controlling coaching styles "undermine the intrinsic motivation of athletes by reducing or thwarting need satisfaction" (Occhino, Mallet, Rynne, & Carlisle, 2014, p. 403). A positive view of this can be found in the coercion of athletes with rewards; however, this may also be seen as a negative.

Often times, this can cause certain pressures given by the coaches to be perceived as the athlete's own behavior. This takes control of the athlete's perceived locus from internal to external behaviors. Overall this creates a loss of self within the athletes, undermining their basic psychological needs and their self-determination, turning it into controlled motivation. Contingent rewards and demands, or guilt, force players to carry out certain demands completely unreflective of who they are as athletes and as people. Anything that results in reward, even verbal recognition and praise, can be perceived as a controlling style.

Ultimately, athletes are in a vulnerable state in which they are susceptible to manipulation and coercive training styles. Creating pressurized environments, ones that are heavily reflective of self-worth and performance, can weigh heavy on both the athletes and the coaches. This may cause reputation and success to reflect on the coaching staff, especially when a certain standard is not met. In turn, causing maladaptive

coaching strategies and controlling behaviors to take place (Bartholomew, Ntoumani, &

Thogersen-Ntoumani, 2010).

Curry and Weiss found that motivation has underlying factors: self, social

identity, and social setting (1989). They made a link between self-motivation and self or,

in other words, identity. This motivation and identity create certain behaviors that take

place within the coaches and the athletes. These behaviors are motivated by the intrinsic

and extrinsic factors that play a role in the daily lives of these individuals; displaying

their confidence in their abilities and the value they place on rewarded tasks (Benabou &

Tirole, 2003). Depending on the role that one plays on a team, whether it be a coach or an

athlete, this motivation may be shown differently further, connecting coaches or athletes

to who they are, their identity, and how both work together to achieve a common goal.

Research Problem

Much research has been done on the athletes and coaches as individual entities on

teams. Research has targeted the athlete and their needs from coaches or the sport itself,

in turn discovering how athletes identify and how it makes them the kind of athlete that

they are. There has also been a long history of research done on coaching and how

coaches view their role for the team and their athletes. Likewise, there has been a long

history of research in how athletes view their coaches. However, there is much less

research simultaneously examining specific athletes and their head coaches. More recent

research has "argued for a shift in the unit of analysis in coaching research from the

coach in isolation to the coach-athlete dyad" (Erickson & Côté, 2016, p. 265). The

problem with much of the research is that coaches often report on athletes' perception of

their coaching styles (Rocchi & Pelletier, 2018). Both of these groups work closely

together to achieve a common goal, but there has been a miscommunication when it comes to the individual's needs and just simply understanding each other.

Literature Review

Many factors go into meeting the basic psychological needs of both coaches and athletes. In order to perform, athletes and coaches have a certain standard that needs to be met, including everything from how they look to how they think are factors of 'their basic needs.' Recent research has connected autonomy-supportive behavior to sports settings, specifically focusing on psychological factors (Rocchi, Pelletier, & Couture, 2013). Basic needs theory assumes there are three needs for the basic human psyche: autonomy, competence, and relatedness. These variations predict levels of psychological and physical well-being (Deci & Ryan, 2000; Ryan, Rigby, & Przybylski, 2006). Research has derived there are two outlooks on well-being. The first finds its roots in happiness and pleasure; the second one focuses on self-realization and how the athlete/coach is engaged (Reinboth, Duda, & Ntoumanis, 2004). These contribute to the "readiness of an individual in a position of authority (e.g., a coach) to take other's (e.g., the athlete's) perspective, provide appropriate and meaningful information, offer opportunities for choice, while at the same time minimize external pressures and demands" (Black & Deci, 2000, p. 742). In other words, if a coach is more autonomy supportive, their athlete will more likely feel autonomous. This would promote the ideal situation for a coach-athlete relationship and the communication within that relationship.

Self-Determination Theory

Self-determination theory (SDT) is connected to these needs. Developed by Edward L. Deci and Richard M. Ryan (2000), SDT "is a theory of motivation, built on

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the assumption that humans have innate tendencies to grow and to integrate life experiences" (p. 227). SDT takes the approach of "human motivation and personality while employing an organismic meta-theory that highlights the importance of humans' evolved inner resources for personality development and behavioral self-regulation" (Ryan, Kuhl, & Deci, 1997, p. 702). In other words, the focus is on people's growth and the tendencies that create the standard for "their self-motivation and personality integration" (Ryan & Deci, 2000, p. 68). To target these inherent standards and qualities, research has identified three specific needs: competence, relatedness, and autonomy. These three characteristics all help to facilitate the utmost optimal functioning when it comes to the growth and integration of personal wellbeing. Along with this research, there have also been environmental factors that have been found to undermine the needs above. SDT is concerned not only with the specific nature of positive developmental tendencies, but it also examines social environments that are antagonistic toward these tendencies (Gagne & Deci, 2005; Ryan & Deci, 2000).

SDT has been used frequently to help examine the style of coaches and even further into how the relationship between the coach and the athlete affect one another. This theory helps to "distinguish between autonomy-supportive versus controlling interpersonal styles" (Stebbings, Taylor, & Spray, 2011, p. 255).

Self-Determination Theory and Sports

In terms of sports, SDT says that "the result of contextual factors related to the sport and the extent to which their psychological needs are satisfied while participating" is what drives the athlete (Vallerand, 2000, p. 316). As mentioned before, the athletes are inadvertently looking for their needs to be met, specifically the "innate and universal

needs for autonomy (to act in line with your interests), competence (the opportunity to express capacities), and relatedness (a sense of belonging with others)" (Deci & Ryan, 2000, p. 230). SDT supports this idea so much so that when the outline of the sport "promotes the satisfaction of the three basic psychological needs, an athlete will experience an increase in autonomous motivation for their sport" (Rocchi & Pelletier, 2018, p.142). In other words, the athlete practices their given sport simply out of pure enjoyment versus practicing because they have to or out of fear of disappointment, thus, "promoting negative outcomes such as burnout and exhaustion" (Lonsdale, Hodge, & Rose, 2009, p. 787). In their journal, Sheldon and Filak (2008) talk about how "if the sports context, or people within it, thwarts an athlete's psychological needs, it leads to needing frustration and, subsequently, the more controlled motivation for the sport" (p. 270).

Motivation

Self-determination theory highlights the main reason why people do what they do. At their best, people constantly strive to be better, attain more, and master new skills. Humans naturally take it upon themselves to apply their talents and fulfill pending commitments. SDT provides an "approach to human motivation and personality that uses traditional empirical methods that highlights the importance of humans' evolved inner resources for personality development and behavioral self-regulation" (Ryan, Kuhl, & Deci, 1997, p. 717). This self-regulation can also be referred to as motivation – "the core of biological, cognitive, and social regulation" (Ryan & Deci, 2000, p. 69). Often categorized as a single construct, motivation draws from all types of factors involving all types of experiences and consequences. Motivation can come from how high one values

something or how much is at stake. The ultimate issue is "of whether people stand behind a behavior out of their interests and values, or do it for reasons external to the self" (Johnson, 1993, p. 5). Comparisons of motivation stem from the authenticity of the source for motivation. Is the motivation self-endorsed? Is the motivation being enhanced by an external presence? Due to there being a huge difference between motivation coming from oneself versus external regulation, SDT has filled the gap in that it focuses on the type of motivation portrayed at that very moment. From looking at a person and studying what intrigues a person to take action, "SDT has been able to identify several distinct types of motivation, each of which has specifiable consequences for learning, performance, personal experience, and well-being" (Ryan & Deci, 2000, p. 69).

      Intrinsic motivation. Even in the absence of any rewards or enticement, humans at a young age are curious and have a natural desire to learn. The very essence of "intrinsic motivation describes this natural inclination toward assimilation, mastery, spontaneous interest, and exploration" (Csikszentmihalyi & Rathunde, 1993, p. 71). Despite this, however, further research has found that if not taken care of, the intrinsic propensity may disrupt easily, taking away from the innate, natural tendencies. With that, several research studies have shown that "the effects of environmental events in intrinsic motivation have focused on the issue of autonomy versus control" also revealing "not only tangible rewards but also threats, deadlines, and pressures conduce toward an external perceived locus of causality" (Ryan & Deci, 2000, p. 70). Further, there are many examples of where this has been proven to work. Studies have found "that autonomy-supportive parents, relative to controlling parents, have children who are more intrinsically motivated" (Grolnick, Deci, & Ryan, 1997, p. 148). From examples like

these, other domains such as sport lean more towards autonomy-focused communication with a coach or mentor further igniting more of intrinsic motivation.

Extrinsic motivation. Keeping in mind that intrinsic motivation is an important element to Self-determination theory, extrinsic motivation is often the forefront of how humans make decisions. A big question that research asks revolving around this idea of extrinsic motivation is "how individuals acquire the motivation to carry out [practices] and how this motivation affects on-going persistence, behavioral quality, and well-being" (Ryan & Deci, 2000, p. 71). The basis of this type of motivation stems from outside social pressures or certain standards that people feel they need to follow. When attempting to foster a certain behavior in another, there is a range of behavior that one can take based on their level of motivation. This is when a person needs to decide the exact value or how important the matter asked of them is. The proposed idea that SDT explains is that extrinsic motivation tends to vary when it comes to its relative autonomy (Ryan & Connell, 1989, p. 758; Vallerand, 1997). Ryan and Deci (2000) gave the example of a student doing their homework, facing outside pressures. When a student does their homework because he/she knows its value for their future career, they are extrinsically motivated; on the same token, students who do their homework because their parents tell them to are also extrinsically motived because they are obeying parental control (p. 71). Both examples are classified as extrinsic because they both involve social pressures versus pure enjoyment in doing the work, forcing a type of compliance resulting in an external regulation.

Explained in SDT is the differing degrees of motivation. The request must be internalized and integrated within the person. The first step, internalization, is the act of

taking in the request; in other words, the person has to realize the value of what is being asked. From this, the integration process happens where the person must make it their own, natural want. The action must genuinely come from the self and not from any pressures or outside forces. Another way to describe this is that the motivation to act is self-determined. In that, it comes from having the innate, personal desire to carry out the process versus doing it in compliance with outside factors.

Coaches

There is, without a doubt, an athlete-coach relationship that takes place in sports. Coaches play such an essential role in being the "protagonist in the process of analyzing and evaluating performance" (Guzman & Kieran, 2013, p. 2). They are the catalyst to coming up with strategy and plays, they recruit their athletes on and off the field, and they make decisions based on what they think is best in terms for the athletes and the program. The experiences that both the coaches and the athletes have are solely dependent on one another; furthermore, the communication and style put forth by the coach has high potential in creating and shaping their athlete's experience (Stebbings, Taylor, & Spray, 2011). Smoll and Smith (2006) said, "coaches can, through their interactions with their athletes, create sport contexts that promote optimal functioning, increased satisfaction, and better performances" (p. 19). Alongside this, "coaches can also create contexts that undermine positive outcomes for athletes and lead to negative sport experiences" (Batholomew, Ntoumanis, & Thogerson-Ntoumani, 2011, p. 25). Aside from incentives for engaging with and finishing out certain tasks, there is not much research done in SDT (Bartholomew, Ntoumani, & Thogersen-Ntoumani, 2010). This is why it is crucial to know and understand any variables that can play a role in influencing

coaches and their styles. Research has been done to provide insight into the psychological

aspect of this relationship and how it is a huge predictor of the athletes' motivation or

lack thereof (Mageau & Vallerand, 2003).

Coaching Behaviors

In relating to SDT, "coaches engage in many interpersonal behaviors when

interacting with their athletes: autonomy supportive (AS), autonomy thwarting (AT), and

relatedness thwarting (RT)" (Rocchi & Pelletier, 2018, p. 142). There are more behaviors

listed in other studies; however, these are the three that predominately come up in

research. Throughout sports, AS actions are those that provide choice to the athlete. It

provides "rationale for tasks, acknowledging athletes' perspectives, giving opportunities

for initiative, and promoting task involvement" (Mageau & Vallerand, 2003, p. 892).

When AT is engaged in, coaches tend to create this environment of controlling rewards;

they make orders that lack explanation and use feedback that is intimidating (Rocchi &

Pelletier, 2018). The outcomes of these two variables have been researched and found

that the athletes who view their coaches as having higher AS tend to claim higher need

satisfaction and autonomous motivation in their sport; whereas, athletes with the

perception of AT in their coaches say they experience higher need frustration along with

controlled motivation (Joesaar, Hein & Hager, 2012). This is the same for coaches. When

their needs are met, their autonomous motivation for coaching is increased. All this to say

that coaches play a huge role when it comes to both "individual and team efficacy

perceptions through the coach's own perceived efficacy (e.g., modeling high efficacy

themselves), feedback provided to athletes (e.g., verbal persuasion), and their behavior

(e.g., leadership style)" (Vargas-Tonsing, Myers, & Feltz, 2004, p. 398). There has been

much research to back this up in saying that coaches are influential and a prime source for efficacy and confidence for their players.

Motivating Factors

The concept of an individual has not only a sense of self but also their ability to realize potential and growth is, in essence, a true testament to well-being (Ryan and Deci, 2001). To go even further, "psychological well-being has been described as the experience of happiness and pleasure" (Stebbings, Taylor, & Spray, 2011, p. 257). Along with this, researchers have contended that well-being is not only the reflection of positivity; rather, it also consists of a feeling of eudemonia (Ryan & Deci, 2001). This positivity and the high energy coming from oneself developed for the SDT structure in terms of involving the specific meaning for well-being (Ryan & Frederick, 1997). With this idea of well-being, there is an importance for coaches to be psychologically well, in that they must be able to not only take care of themselves but omit positivity and assurance onto their athletes, further creating a positive and well-adverse climate for their athletes' well-being. They provide an atmosphere where the players are free to set goals – a provision of social support believed to be where one is loved and valued by players and coaches (Pierce, Sarason, & Sarason, 1992). Any negativity or factors that cause ill communication within these relationships could be said to be a reflection of "psychological well-being and controlling behaviors in coaches" (Stebbings, Taylor, & Spray, 2011, p. 258).

A study by Stebbings, Taylor, and Spray in 2011 suggested, "the autonomy of coaches' need satisfaction is positively related to their psychological well-being" (p. 261). This study is consistent with one that was done in 1997 by Ryan and Frederick who

argued that autonomy is an important part of the building of psychological health. They reported that well-being could not be attained if one feels as if they are being controlled. In other words, coaches who feel confident in their position and supported in their roles thrive versus those that feel possibly controlled or powerless in their decision-making. Now, many factors that can play into this feeling of doubt. Social agents such as athletic directors, other coaches, and compliance people can all play a role in explaining why the coach might feel a certain way. These same agents should allow for their coaches to make decisions based on how they run practices, how they control their athletes, and how they partake in preparing their team for competitions (Stebbings, Taylor, & Spray, 2011). Coaches should feel as if they have input in the organization, along with these social agents, through the use of feedback processes to help acknowledge feelings and possible concerns (Allen & Shaw, 2009).

As mentioned previously, the higher the perceived autonomy of supported actions, the better the psychological well-being component coming from the coach. A coach who experiences a psychological increase in their role is more apt to "provide athletes with choice, responsibility, and engage in open discussions with athletes regarding their feelings, ideas, and opinions about training sessions and competition" (Stebbings, Taylor, & Spray, 2011, p. 267). This creates higher adaptive skills in the athletes. Research has found that the coaches who stripped of their ability to carry out such supportive environments may take a more directive approach, issuing criticism, and they may try to control their athletes more.

Athletes

Although there is not much research done on the way coaches relate specifically to the athletes, there has been plenty of research done on examining how athletes resonate with their coaches. Various coaching styles and attitudes are given different meaning by each athlete, which results in the reactions coaches receive from each player (Kenow & Williams, 1999). In other words, athletes perceive coaches in different ways; what one athlete sees in a coach may be perceived in another way by a different athlete.

Athlete's Needs Satisfaction

Historically, what has been seen as a coaching style from a coach's perspective may be viewed as need satisfaction from an athlete's. In the same way, research has suggested that the perception of a coach's style is far more critical than what the coach actually does (Shaver, 1975). Smoll and Smith (1989) created a model that provides a framework for examining the athlete's reaction to the way coaches behave. The basis of this framework takes how the coach behaves, looks at how the athlete perceives their behaviors, and bases the recall on the evaluation of the reaction between the athlete and the coach. Another study, performed by Kenow and Williams (1997), analyzed the results of the Coaching Behavior Questionnaire. The athletes were tested on cognitive anxiety, perceived cognitive effects, and supportiveness in addition to other factors. Depending on how they answered, Kenow and Williams were able to see if they viewed their coach's behavior negatively or positively. In addition, when looking at the athlete-coach communication, one must assess the athlete's behaviors and desires as well. It may not match, causing the perception of that particular coach to be skewed from the very beginning.

Motivating Factors

Many studies have been done to research just how psychological factors affect an athlete's motivation. First and foremost, how the athlete perceives specific social agents, mainly their coaches, has the most impact on their motivation. Many of these factors include "coaches and peers' autonomy for support, perceptions, and behaviors that affect the sense of belongingness to others, and recognition for effort and improvement" (Joesaar, Hein, & Hagger, 2012, p. 257-8). Much of the recognition comes from having an emphasis on the learning process and not putting such a negative view on the ego-involvement from either the athlete and/or the coach. Athletes who perceive their climate to be mostly task-oriented and to have the freedom to make decisions generally report having higher satisfaction and positive motivation (Ntoumanis & Biddle, 1999). This is not to say that they do not have to listen to their coaches; rather, it is saying that athletes who feel supported in thinking for themselves in the field of play resonate more with their coaches over athletes who are judged and analyzed by their every move. Athletes fare better when their social agents are supportive of their decisions and are more likely to hold a sense of intrinsic motivation when it comes to their participation. Even more so, "athletes that perceive the pervading motivational climate as task-involving are more likely to be self-aware, and to better resist, having their motivation undermined by failure and adversity" (Joesaar, Hein, & Hagger, 2012, p. 258).

Another factor that plays into this is the total self-confidence and self-efficacy that an athlete feels. Efficacy beliefs are motivated by factors such as personal accomplishments, various experiences, types of verbal persuasion (e.g., feedback from coaches), and psychological factors (Vargas-Tonsing, Myers, & Feltz, 2004). All four of

these factors play into one another, relating a message to the athlete as well as a message to the coaches. Looking at the performance accomplishments, one can see how important the relationship between the coach and the athlete is. This is the determinant factor because it is the one that shows progress or lack thereof. This basically says that if the athlete performs well, both physically and mentally, it is because they have high self-efficacy and self-confidence stemming from their environment.

Athletes are like sponges. They are constantly watching and taking in what their coaches do; they feed off of their energy and the way they interact with the athletes on and off the field. The interpretations play a role in the athlete's self-perceptions, their beliefs, and attitudes, all of which affect motivation and their performance (Horn, 2002). All of this combines to affect their need satisfaction. Kenow and Williams (1999) suggest in their research that if the goals of coaches and athletes are similar to one another, there will be a positive interaction among the athlete-coach relationship. Further, they found that if the goals are incompatible, there might be particular psychological needs not being met. Coaching goals and athlete's needs again appear to be two different views of the same phenomena.

Identity

The term *identity* is one that is still being researched and is up for continuous debate; however, it is understood as the way a person describes themselves (Brettschneider & Heim, 1997). It is a "set of meanings that classifies who an individual is when they are occupying a given role in society or being a member in a group" (Pope, Hall, & Tobin, 2014, p. 136). This covers both personal identity and how one defines him or herself socially. Identity is a complex notion of internalized values and norms that one

has processed to work for them (Cassidy, Jones, & Potrac, 2009). People internalize these ideas, which in turn drives how they are in society. These relationships along with communication and certain power-dynamic roles also play into creating one's identity. Groups and teams hold the upper hand when it comes to assigning certain roles and identities. These particular roles hold power to shape much of who one is and may sway their views, their morals, and their norms. Although there are many elements to creating one's dentity, the truth is that they are all inextricably linked, in that it is important for both coaches and athletes not to lose sight that each individual is a social being rather than just a piece to the puzzle (team). It is important to remember that there are many factors that go into shaping one's identity. When realized and acted on appropriately, the ability to perform well in the various roles may take place (Cassidy, Jones, & Potrac, 2009). These roles are dictated and fulfilled based on the particular style a coach may have, "strongly related to athlete motivation, satisfaction, mental skills, and performance" (Rieke, Hammermeister, & Chase, 2008, p. 232).

Coaching Identity

Much of coaching deals with the kind of role that the particular coach has, many of which are similar to that of a boss, a family member, or even a gatekeeper (Drake, 2008). Many of these roles can be assigned specifically, or they may be assumed upon the position. One source says that the overall goal of a coach is to assist athletes to better their performance (Moen, Hoigaard, & Peters, 2014). Depending on what type of coach one is, or their status on the team, underlying intentions or principles demand specific outcomes and expectations of coaches (Hunt & Handsfield, 2013). Research has found that it is important to look at who the coaches are versus what they do in relation to the

outcomes with whomever they are coaching. This is a factor that will "likely vary according to a myriad of contextual factors and athlete personal characteristics" (Gilbert & Trudel, 2008, p. 21). In a study done by Pope, Hall, and Tobin, they tested and found that some of the top characteristics of coaches were reported to be: caring, dedicated, fair, respectful, and organized (2014). These researchers then tested for what coaches classify as their purpose. They had the coaches comment on these three categories: athletic development, life skills, and personal growth. Most, if not all of the coaches, found that their identity depended on the satisfaction they found within their team (Pope, Hall, & Tobin, 2014).

McLean and colleagues (2012) found that sports participants' identities and more specifically coaches' identities, could be related to six motivating factors: intrinsic, integrated, identified, introjected, external, and amotivation. The first one is *intrinsic*, which refers to behaviors engaged in freely and of personal choice (McLean et al., 2012). *Integrated* behavior is where behaviors are accepted into one's actual identity. For example, a coach may move to a certain area in order to have more access to develop players. The next factor is *identified*. This is when the underlying value is acknowledged by one's self and carried out extrinsically (e.g., a coach may attend a few classes, regardless of enjoyment, in order to stay up to date with new rules or initiatives) (McLean et al., 2012). The next factor is called *introjected* regulation. This is monitored by self but influenced by external factors specifically dealing with pride, self-worth, or sometimes feelings of guilt. An example of this would be the coach feeling responsible for their athletes' performance (McLean et al., 2012). The fifth factor is *external*; contingencies such as rewards or punishment affect this factor. Lastly is the *amotivation* factor, which

describes the lack of motivation and uncertainty for a certain activity or workout (McLean et al., 2012). Amotivation is non-self- determined and may be caused by an outside locus of control (Ryan & Deci, 2000).

A coach is one entity; their team of however many is the product of what they try to portray. This is why it is important for the coach to be aware of trying to fit in too much versus creating their own routines by which they will be freely judged (Drake, 2008). As with many things in life, one cannot force certain norms on others if they do not fully believe it themselves. Coaches have to find their path – their identity – where they can instill values and standards for their players. In their article, Wade D. Gilbert and Pierre Trudel studied a common feature labeled as 'role frames' (2008). Another way this can be defined is how the coaches make the reality in how they function (Schon, 1983). Role frames provide a framework of self-reinforcing motives, further enhancing the stability of the coaches' environment. These 'frames' are transient and are subject to change based on reflection and practice.

Not much research has been done to examine how coaches feel and identify with their roles and their teams (Felton & Jowett, 2012; Guzman & Kingston, 2013; Rocchi & Pelletier, 2018). How one coach perceives their style may be different from how their athletes perceive them and vice versa. This is an opportunity for research to focus more on the coaches' perceptions of themselves compared to the perceived needs of their athletes.

Athlete Identity

The truth of the matter is an athlete's career is short-lived in terms of life. Whether one competes or not and regardless of the level, most would identify with some

sort of acknowledgment of being an athlete. Regardless of whether it is just age, injury, or other measures that force retirement from any level, most athletes confess to being psychologically unprepared to be done (Webb, Nasco, Ruley, & Headrick, 1998). Consequently, athletes find it hard to fill the void of being away from the team atmosphere and the constant competitive nature. Research has found it hard to truly study the difference between retirement from the sport to that of retirement from a job, for example; however, researchers have acknowledged that "there is a uniqueness in the athletic identity" (Webb, Nasco, Ruley, & Headrick, 1998, p. 339). Athletes really do identify with a certain status quo, so much so that they begin to identify with that particular athletic role (Brewer, Van Raalte, & Linder, 1993).

The reason this identity is found to be so hard to part with is the idea that an athlete begins to identify with this label at an early age. Athletic ability is many times seen and practiced early on. It becomes the central focus of many children and parents, consuming many hours of their life with practices and games. With this continuing into high school and then possibly college, the athlete's identity becomes a way to define who they are as a person; it establishes their overall self-concept. Furthermore, the way athletes perceive their level of athletic identity is a crucial part of their sustainability in their given sport (Chen, Snyder, & Magner, 2010). The higher the individual emphasis the athlete has on their athletic identity, the more invested they become to all aspects of the sport, including their interpersonal relationships. Many of these relationships include teammates, family, consultants, and other athletics staff. The communication athletes have with their coaches is above all the greatest influence on training, outcomes, and many more aspects of their lives (Poczwardowski, Barott, & Henschen, 2002). Simply

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put, their identity is not only created by themselves, but also through the influence of those around them (Chen, Snyder, & Magner, 2010).

Athlete-Coach Relationship

Ultimately, the relationship has to start with knowing the importance and the difference between the athlete as a social being and the athlete as a performing body (Cassidy, Jones, & Potrac, 2009). Simply, there is much interpretation left regarding the many different expectations that are held by coaches from everything regarding what they do and how they behave to how they pursue through frustration and how they develop over time (Hibbert, Heydon, & Rich, 2008; Lynch & Ferguson, 2010). This can be said to hold true for both coaches and athletes. The communication that coaches have with their athletes involves a lot more than "the simple teaching and instruction of technical skills and tactics" (Moen, Hoigaard & Peters, 2014, p. 75). Their communication must build on trust, along with a genuine and helping nature (Moen, Hoigaard & Peters, 2014; Poczwardowski, Barott, & Henschen, 2002). All too often athletes get clumped together, and coaches sometimes tend to forget that each athlete is an individual being. Athletes are not meant to be 'serviced' by their coaches. In their book, Cassidy, Jones, and Potrac emphasize that coaching is about making connections amongst other people and life in general (2009). Now, this is not to say that coaches should only focus on a particular individual or give special treatment; most, if not all, criticism and support should be given in the team setting so that the others are aware and feel involved. Regardless of focus, autonomy, relatedness, and connectedness are critical for both coach and athlete (Felton & Jowett, 2012; Guzman & Kingston, 2013; Rocchi & Pelletier, 2018; Ryan & Deci, 2000).

Consistency of Culture

There is something to be said about creating and upholding a certain standard and culture when it comes to sports teams. Many sociologists have argued the idea of culture and its validity in sport; however, it can be said to stem from specific interactions of shared understandings. In other words, it is not the interactions itself. Instead it is the topics, contents, and meanings exchanged back and forth (Fine, 1979).

Of course, not everyone is going to walk away with the same view as their peers. It is impossible to reach this commonality amongst all people in a working dynamic; however, this is not to say that there is not a shared understanding of what is implied and of certain expectations that must uphold. As Fine mentions, the experience and understanding of the dynamics is inevitable when involved in group life, or in this case, a team (1979). Members of these teams have the choice to either buy into what the program was founded on, or they can choose to disagree. At the end of the day, there are certain standards, symbols, and styles that are communicated as a means to abide by the specific team that a coach or athlete is a part of (Fine, 1979). Although some adaptations should be made, it is important to hold people to a certain standard. This creates consistency within the team and upholds the culture.

With this being said, these concepts lead to the following research questions and hypotheses:

RQ1: Is there a relationship between coach identity and coaching styles?

RQ2: Is there a relationship between athlete need satisfaction from coaching and athlete identity?

H1: There is a significant difference between coaching style and athlete need satisfaction.

CHAPTER II

METHODOLOGY

The methods used for this study were done through quantitative measures. The population of this study consisted of coaches, a "member of the teacher staff of a school, college, or university whose responsibility is the training of students in athletic or sporting activities" (Collins Dictionary, n.d.), and student-athletes "who are eligible to engage in sport at the intercollegiate level" (Sport Agency Responsibility and Trust, n.d.). The participants used were from throughout the United States and Canada. Furthermore, these participants consisted of people from the university level and college level. The main criteria being that they have participated on a team and/or coached a team, past and present, and of 18 years or older. These surveys were approved and validated throughout much research over North America (Gunnell, Crocker, Wilson, Mack, & Zumbo, 2013; McLean, Mallet, & Newcombe, 2012). Additionally, this research was approved through the IRB (see Appendix A).

Instrumentation

All of the questions for this research were from the Coaching Motivation Questionnaire (CMQ) and the Psychological Need Satisfaction and Exercise Scale (PNSE). The purpose of the study was to see if coaches' and athletes' perceptions of self-identity are consistent with their behaviors of how the other one sees them. In other words, do coaches believe their style is being perceived correctly by their athletes? Also, how does this affect the identity of both the coaches and the athletes?

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Coaches' Motivation Questionnaire

The CMQ consists of 41 scale item questions. Both coaches and athletes used this questionnaire. An altered version was sent to their athletes to measure identity. The modified questions did not take away from the meaning; however, some of the words were adjusted to aim the questions at the athletes, instead of the coaches. These questions centered around one main concept: Why do you coach your sport? OR Why do you play your sport? In past research, this questionnaire was sent to 86 coaches averaging about 36 years in age (McLean, Mallet, & Newcombe, 2012). Many of these coaches had worked at all levels, including international, national, and participation. Many sports were represented, including both team and individual. When these coaches took the survey, they were to rank their answers on a seven-point Likert scale ranging from 1=not true at all and 7=very true (McLean, Mallet, & Newcombe, 2012). An item analysis was used to figure out the reliability in each of the six subscales. Due to there being such a small sample size (DeVellis, 2003; Tabachnick & Fidell, 2001), "factor analysis methods were not employed" (McLean, Mallet, & Newcombe, 2012, p. 188). The sample, however, went over the assumed threshold (N=67) needed to figure out the correlations related to a Type 1 error. The reliability of this questionnaire was determined using Cronbach's Alpha, which was found to be above α =.70 (McLean, Mallet, & Newcombe, 2012).

There was a second study done using the CMQ to assess the reliability and validity of the scale questions. Many of the factors including "psychological needs, well-being, and goal orientations were investigated to examine the validity of the measure" (McLean, Mallet, & Newcombe, 2012, p. 189). Past research (e.g., Hollembeak & Amorose, 2005; Ntoumanis, 2001), found that the higher the autonomous forms of motivation, the higher the intrinsic need satisfaction. The sampling size was 556 coaches

again, all from various levels of coaching. All coaching levels were considered to show how the measurement of coach motivation was similar across all levels. These participants filled out a survey package, including the CMQ-41 questionnaire, representing 41 items. Due to expert review and that some questions did not represent the specific purpose, additional deletion of three scale questions took place. This resulted in all alphas being above the standard 0.70 (McLean, Mallet, & Newcombe, 2012).

The CMQ focused highly on the coaches' identity and how much they associate their job with their life. It was a correlation to their perceptions of how they coach their athletes and meet their needs. This survey was adapted to fit with athletes' identities for this research study. Some of the language was changed so that where the word "athlete" showed up, "coach" was substituted. Only 22 of the questions were used because they targeted the traits that were tested in this study, still providing excellent validity. This was because "factorial validity of the CMQ was supported using CFA . . . based on their high standardized residuals, low factor loadings, or indications of cross-loading (McLean, Mallet, & Newcombe, 2012, p. 198). It goes on to say that, "the final solution consisted of 22 internally consistent items representing the six forms of motivation proposed in SDT" (p. 198).

Psychological Need Satisfaction and Exercise Scale (PNSE)

The PNSE scale captured the components of relatedness satisfaction, autonomy satisfaction, and competence satisfaction felt during exercise. This was used to measure perceived coaching style for coaches, and it was also used to measure athletes' needs satisfaction. Originally, the PNSE consisted of a 32-item scale that assessed the psychological needs that came from participating in exercise (Deci & Ryan, 2002). It was sent out to 155 participants (*N*= 155), the majority being females, starting at 17 years

and older. These participants ranged in several categories, including marital status, body

mass index (BMI), educational status, and ethnicity/race. This was important to survey a

variety of people, not limiting it to a certain type or standard. Adhering to Godin's (2011)

recommendations, most of the participants for this survey were in some sort of physical

activity before, during, and post-survey. The purpose of this was to make sure that the

participant clearly resonates with their physical activity, providing an accurate scale

reading.

Modifications were made to fit the purpose of the study that Gunnell and his

colleagues did (2012). They changed the word "exercise" to "physical activity,"

something that was done for this research assignment as well. Participants were asked to

answer each of the items, answering on a scale of 1 (false) to 6 (true). A coefficient alpha

above 0.72 was found ($\alpha \geq .72$) (Gunnell et al., 2012).

As mentioned above, the PNSE survey was targeted at athletes; however, for the

purpose of this research, some of the language was adapted to fit the coaches. Along with

those changes, physical activity had been changed to sport or team to adapt the questions

to the specific audience. The first half of the test including competence thwarting,

autonomy thwarting, and relatedness thwarting were dropped because they focused more

on the negatives. The last three sections of the PNSE were kept, as well as competence

satisfaction, autonomy satisfaction, and relatedness satisfaction. These three sections

really targeted the Self-determination theory and gear their focus to well-being, leaving

18 questions kept for this study.

Strengths and Weaknesses

Surveys provide a great way to find and interpret new research for this particular

study. They provide means for "gathering quantifiable information about a specific

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group of people" (Wrench, Thomas-Maddox, Richmond, & McCroskey, 2016, p. 217).

The CMQ and PNSE survey were used for both the coaches and the athletes; however,

the questions were altered to target the athletes specifically when distributed to them.

Both parties received the survey link, either through email, text message, or social media

outlets. Although there were many ways to perform this research, surveys through

computer and social media have changed the way research is done. Wrench and

colleagues explain in their chapter "Survey Research" that a questionnaire contains many

questions and mental measures for a group of people (2016). This information gathered

from the questionnaire helps to gain statistical information about the group as a whole.

For this research, the CMQ and PNSE were used. They were reliable scales that had been

researched and tested. This was important because inexperience creates the temptation to

throw a bunch of randomly correlated scales together, resulting in substandard research

(Wrench, Thomas-Maddox, Richmond, & McCroskey, 2016).

As with anything, there will always be various strengths and weaknesses; the

same goes for survey methodology. The term *survey* literally "means the process of

looking at something in its entirety" (Reinard, 2007, p. 346). This is just one of a survey's

many strengths. It provides the ability to study multiple variables that are related – not to

be confused with causation. Surveys provide a quick and efficient way of sorting between

the connections between the independent and dependent variables (Manfreda, Bosnjak,

Beberzelak, Haas, & Vehovar, 2006). Another strength is that surveys have the option of

being anonymous; it is important to relay this to the participants (Reinard, 2007). Being

anonymous, the participants may have been more apt to fill out the survey honestly

versus being conservative due to their name; however, this may have led to some of the

weaknesses with this type of methodology. There is a limitation in the ability of

generalizing from samples to total populations (Manfreda, Bosnjak, Beberzelak, Haas, & Vehovar, 2006). This study, for example, was limited due to the number of coaches and athletes surveyed. Finding a decently sized population for athletes was much easier than that of a coaching community. Especially with the way this research method was done with matching up the head coach to their athletes. Another weakness was that causation cannot come from survey research, only causal claims, limiting further discussion.

Survey research is widely known and the most commonly used method in research today (Macias, Springston, Lariscy-Weaver & Neustifter, 2012). Using surveys provides a way of comparing two or more variables. This allows for the researcher(s) to see if there is a correlation between the various variables. Surveys allow for potentially larger sample sizes, resulting in even the tiniest of differences showing up as significant (Kaplowitz, Hadlock, & Levine, 2004). However, when there are larger sample sizes, substantive differences may cause false interpretation of responses or differences recorded may not be exactly how the person truly wanted to respond. Due to the smaller sample size in this case, there was not an issue with this.

When dealing with humans as subjects for research, there will always be difficulties. One of the major concerns that researchers struggle with when using survey methods is the response rate. This is measured by the "percentage of surveys returned compared to the percentage of surveys distributed" (Wrench, Thomas-Maddox, Richmond, & McCroskey, 2016, p. 231). The most unwanted and unsuccessful of this is a unit nonresponse. This takes place when there are no measurements able to be taken because of answered questions on a particular sample unit (Dillman et al., 2002). Along with this is an item nonresponse, which is when the participant does not answer certain questions. This can be related to how surveys question individuals about certain beliefs,

intentions, and attitudes, causing some people to be uncomfortable with answering these questions.

Many studies have been done to evaluate how coaches view themselves and perceive their coaching styles (Frederick & Morrison, 1999; Smith, Fry, Ethington, & Li, 2005). Even more studies have been done on athletes and their perceptions toward coaches and how it influences their motivation and well-being. There are not many studies done comparing the connection between both the coaches and athletes simultaneously (Erickson & Côté, 2016; Felton & Jowett, 2012; Rocchi & Pelletier, 2018). This research focused on examining coach-athlete dyads. Specifically, it examines how coaches perceive their coaching style versus how their athletes view these styles as meeting their needs and how it affects both of their identities.

Surveys were sent out to various head coaches and their athletes. Each survey was labeled with the specific name of the school and their sport so that it was easily distributable and simple to match when the results come back. For example, the researcher emailed the link to the head football coach at XYZ University. The name of the survey included XYZ University – Football, so that it was easier to match the results. With that, every survey that was sent had its own collector. At the beginning, there was a consent form that each participant was required to digitally sign (see Appendix B). Here, the coaches were made aware that their answers would be confidential, and the athletes were made aware that their answers were anonymous. Next, there was a question that asked if the respondent was a head coach or an athlete. From there, the survey took the participant to the appropriate questions for either the coach or the athlete. Demographic questions at the end of the survey were also asked. Since these questions were not related to the research questions or the hypothesis, this was done to increase the completion rate.

These questions included age, gender, and length of being an athlete/coach. Distributed via email or text message, this survey link was allocated based on relationship or access to either a coach or a player. Some were sent first to coaches to be sent among their teams and some were sent to athletes to share with their head coach.

Included in the survey was a demographic question of age, asking the participants if they are 18 or older. If a respondent happened to fill out the survey saying they were younger than 18, the survey immediately went to the end, not allowing them to fill out questions. Particular age was not asked because some of the sports had only one athlete respond; this ensures that responses were kept confidential. The other two demographic questions cover gender and how long the athlete had played their sport, or how long the coach had coached their sport.

<div align="center">**Data Analysis**</div>

The data collected was analyzed through SPSS statistical software. This computer program served the purpose of analyzing data quantitatively and locates trends within the data. First, the coaches' styles were matched with the athletes' needs. A Pearson Product moment correlation test, developed by Karl Pearson, was run on both of the research questions; this type of test was appropriate for both interval and ratio level data (Reinard, 2007). Direct and inverse relationships were tested as the literature was unclear as to the exact nature of the relationships.

Research Questions

 For coaches, the research question explored *"*Is there a relationship between coach identity and coaching styles?" For athletes, the research question explored "Is there a relationship between athlete need satisfaction from coaching and athlete identity?" The results were analyzed using data from the CMQ and PNSE scales (see Appendices C and

D). With this test, a strong correlation would result in a number close to 1 or -1; however, the results can fall anywhere between (Reinard, 2007).

Hypothesis

This research study tested one hypothesis. The independent variable was the head coaches' coaching style and the dependent variable was their athletes' need satisfaction. This was measured by taking the results from the PNSE survey that was used by Gunnell and colleagues (Gunnell et al., 2013). This research explores the difference between how coaches view their coaching style and how athletes are affected based on their needs met. A dependent sample *t*-test was used to analyze the results from the PNSE survey exploring the hypothesis: *There is a significant difference between coaches' perceived coaching styles and athletes' perception of coaching style.* This type of test is done in situations when subjects and variables can be matched (Reinard, 2007). Additionally, a Pearson *r*-test was performed to see if the two variables were correlated.

Participants

The research for this study began in the summer of 2019. Data analysis was conducted in fall of 2019. One hundred and sixty-five teams were emailed across the U.S. and Canada. Fifty-six of the teams (34.94%) were Canadian teams and 109 (66.06%) were American teams. Within these teams, 71 were female teams (43.03%) and 67 (40.61%) were male teams. Twenty-seven (16.36%) were from teams with a mixed group of both female and male athletes. While the majority of teams were female, the majority of coaches were male. One hundred and fifty-nine (84.13%) of athletes who responded were female and 30 (15.87%) were male. On the contrary, eight (28.57%) of the coaches who responded were female and 20 (71.43%) were male. The researcher and two family members had a direct connection to 41 (24.85%) of the 165 teams contacted.

Of the 165 teams, 31 (18.89%) responded with usable data. A higher response rate was received from American teams versus the Canadian teams. Five (16.13%) of the teams that responded were Canadian teams and 26 (83.87%) were from the U.S. Twenty-one (67.04%) of these responses were from female teams, six (19.36%) responses were male, and four (12.09%) responses came from multi-gendered teams.

The researcher and two family members have a direct connection to 17 (54.84%) of the 31 responses. Of the 31 teams, 11 were from two schools in which the primary researcher had played softball and attended school, resulting in about 35% of the responses.

The research protocol was approved by the Institutional Review Board (see Appendix A) to keep the coaches confidential and the athletes anonymous. College coaches and athletes were asked to fill out a survey regarding their respective team/head coach. The survey was sent out over the summer of 2019 and continued into the early fall; approximately running nine weeks. An email or text message was sent out to the point of contact of each individual team, asking for their interest in participating. Once confirmation was made, the survey link was sent to either the head coach or the athlete. There was no deadline specified for the completion of the survey, allowing it to be voluntary and on the participants' own accord. Two hundred and eighty completed surveys were received. Two hundred and thirty-four survey respondents identified as athletes and thirty-eight respondents identified as coaches. The total completion rate for athletes was 86.3% (202) and the total completion rate for coaches was 92.1% (35).

CHAPTER III

RESULTS

After the results were collected and organized from the data server, a descriptive

statistics analysis was run to test the reliability of the coaches and athletes. Both the CMQ

and the PNSE were converted to a seven-point scale for comparability. With one being

extremely false and seven being extremely true. Due to a technical error, items one and

two were shown together in the PNSE. This reduced the competence scales from six

items to five. Alpha (α) scores were used to judge the impact on the scale because

reliability scores for both coaches and athletes in that subscale were above 0.9.

Descriptives for PNSE and CMQ Reliability

Athletes' Cronbach's Alpha (α) ranged from 0.873 to 0.927 on the PNSE and

0.761 to 0.926 on the CMQ (see Table 1). For the PNSE, values for competence could

range from 7-35, with 20 being the median score. Values for relatedness could range

from 6-42, with 24 being the median score. Value for autonomy could range from 6-42,

with 24 being the median score. For the CMQ motivations, values for intrinsic,

introjected, external, and amotivation could range from 4-28, with 16 being the median

score. Values for integrated and identified could range from 3-21, with 12 being the

median score. Scores tended to be extremely positive except for low amotivation.

Table 1

Athlete's PNSE and CMQ Reliability

Athletes	Variable	N	M	SD	α
PNSE	Competence	210	29.19	4.14	0.93
	Autonomy	205	33.64	5.77	0.87
	Relatedness	197	35.05	5.60	0.92
CMQ	Intrinsic	194	23.51	3.27	0.83
	Integrated	195	17.27	3.43	0.91
	Identified	192	18.45	2.67	0.91
	Introjected	192	19.95	4.69	0.76
	External	191	17.54	5.42	0.90
	Amotivation	191	11.63	5.62	0.93

Coaches' Chronbach's Alpha (α) ranged from 0.83 to 0.95 on the PNSE and 0.81 to 0.94 on the CMQ (see Table 2). For the PNSE, values for competence could range from 7-35, with 20 being the median score. Values for relatedness could range from 6-42, with 24 being the median score. Value for autonomy could range from 6-42, with 24 being the median score. For the CMQ motivations, values for intrinsic, introjected, external, and amotivation could range from 4-28, with 16 being the median score. Values for integrated and identified could range from 3-21, with 12 being the median score. Scores tended to be extremely positive except for low amotivation.

Table 2

Coaches' PNSE and CMQ Reliability

Coaches	Variable	*N*	*M*	*SD*	α
PNSE	Competence	29	30.83	3.34	0.95
	Autonomy	29	38.00	3.96	0.83
	Relatedness	29	36.21	4.39	0.93
CMQ					
	Intrinsic	29	25.48	2.21	0.81
	Integrated	29	18.28	2.55	0.81
	Identified	29	17.31	2.92	0.93
	Introjected	29	23.52	4.34	0.81
	External	29	15.76	5.47	0.90
	Amotivation	29	9.24	4.91	0.94

Small Sample Sizes in Parametrics

Typically, sample sizes of 30 or more are desired in most statistical analyses. However, both parametric correlations tests and dependent sample *t*-tests are considered robust even when using small samples; therefore, their use was considered appropriate. Although the sample size for the correlation was 29 (*N*=29), there was merit in running a Pearson Bivariate Correlation test. The "normal bivariate surface [could] be mutilated or distorted to a remarkable degree without affecting the sampling distribution" (Bonett & Wright, 2000, p. 24). Additionally, further research has discovered that even numbers as low as five qualified for a two-tailed *t*-test (Winter, 2013). The results from the research using an *N* of 5 (*N*=5) showed that "applying the *t*-test on small samples is feasible" (Winters, 2013).

Research Question One: Coaching Style and Motivation

Twenty-nine head coaches completed all questions for both style and motivations (see Table 3). Motivations scores ranged from 2.31 to 6.37. Style scores were always less

ranging, from 6.03-6.33. All the variables were ranked positively except for Amotivation, which was connected with uncertainty.

Table 3

Descriptive Statistics for Coaches

Coaches	Variable	N	M	SD
PNSE	Competence	29	6.17	0.67
	Autonomy	29	6.33	0.66
	Relatedness	29	6.03	0.73
CMQ				
	Intrinsic	29	6.37	0.55
	Integrated	29	6.09	0.85
	Identified	29	5.77	0.97
	Introjected	29	5.88	1.08
	External	29	3.94	1.37
	Amotivation	29	2.31	1.23

For research question one, a correlation test was run to test for a significant relationship between coaching style and coaching identity (see Table 4). Motivations that had a significant relationship with competence were intrinsic, integrated, and amotivation ranging from -0.511** to 0.518**. Motivations that had a significant relationship with autonomy were intrinsic, integrated, and introjected ranging from 0.433* to 0.518**. Motivations that had a significant relationship with relatedness were intrinsic, integrated, and identified ranging from 0.436* to 0.703**. External motivations were not related to any forms of coaching style.

Table 4

Relationships Between Coaching Styles and Motivations

		INTRIN	INTEGR	IDENT	INTRJCT	EXT	AMOT
COMP	Corr.	.408[*]	.518[**]	0.26	0.26	-0.19	-.511[**]
	Sig.	0.03	0.00	0.17	0.17	0.32	0.00
	N	29	29	29	29	29	29
AUTO	Corr.	.518[**]	.454[*]	0.15	.433[*]	0.01	-0.37
	Sig.	0.00	0.01	0.45	0.02	0.94	0.05
	N	29	29	29	29	29	29
RELAT	Corr.	.703[**]	.656[**]	.436[*]	0.25	0.03	-0.35
	Sig.	0.00	0.00	0.02	0.2	0.86	0.06
	N	29	29	29	29	29	29

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

Research Question Two: Athletes' Needs Satisfaction and Motivation

Athletes were not as diligent in completing their surveys, ranging from 191-210 for both styles and motivations (see Table 5). Motivations scores ranged from 2.91 to 6.15. Style scores were always less, ranging from 5.61- 5.84. Similar to the coaches, all the variables were ranked positively except for Amotivation which was connected with uncertainty.

Table 5

Descriptive Statistics for Athletes

Athletes	Variable	*N*	*M*	*SD*
PNSE	Competence	210	5.84	0.83
	Autonomy	205	5.61	0.96
	Relatedness	197	5.83	0.93
CMQ	Intrinsic	194	5.88	0.82
	Integrated	195	5.76	1.14
	Identified	192	6.15	0.89
	Introjected	192	4.99	1.17
	External	191	4.39	1.35
	Amotivation	191	2.91	1.41

For research question two, a correlation test was run to test for a significant relationship between athletes' perceived style of coaching and athlete need satisfaction (see Table 6). There was a significant relationship between coaching identity and style. Motivations that had a significant relationship with competence were intrinsic, integrated, identified, introjected, and amotivation ranging from -0.315** to 0.512**. Motivations that had a significant relationship with autonomy were intrinsic, integrated, identified, introjected, and amotivation ranging from -0.264* to 0.503**. Motivations that had a significant relationship with relatedness were intrinsic, integrated, identified, introjected, and amotivation ranging from -0.311* to 0.584**.

Table 6

Relationships Between Athlete Styles and Motivations

		INTRIN	INTEGR	IDENT	INTRJCT	EXT	AMOT
COMP	Corr.	.512**	.471**	.467**	.198**	0.12	-.315**
	Sig.	0.00	0.00	0.00	0.01	0.09	0.00
	N	194	195	192	192	191	191
AUTO	Corr.	.503**	.442**	.421**	.301**	0.07	-.264**
	Sig.	0.00	0.00	0.00	0.00	0.31	0.00
	N	194	195	192	192	191	191
RELAT	Corr.	.584**	.484**	.420**	.209**	.160*	-.311**
	Sig.	0.00	0.00	0.00	0.00	0.03	0.00
	N	194	195	192	192	191	191

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

Hypothesis: Coaches' Style and Athletes' Needs Satisfaction

All team members' scores were averaged to see if there was a significant difference between the general athletes' needs satisfaction and coaching styles (see table 7). Coaching styles were fairly similar, ranging from means 6.04-6.35. Athletes' scores

were always less, ranging from 5.54-5.82. There was one coach that did not have any

athletes contributing, leaving the resulting *N* equalling 28.

Table 7

Overall Descriptive Statistics for Coaching Style and Athletes' Needs Satisfaction

	M	SD	N
ACOMP	5.82	0.51	30
AAUTO	5.54	0.54	30
ARELATE	5.80	0.57	30
CCOMP	6.17	0.68	28
CAUTO	6.35	0.67	28
CRELATE	6.04	0.74	28

Hypothesis one was examined in two ways. Means tended to be positive for the

three elements for coaching style and athletes' needs (see Table 8). First, a dependent

sample *t*-test was conducted to compare responses for both coaches and athletes. There

was a significant difference between coaching styles and athlete needs satisfaction in two

of the three measures. The two measures that were different were competence and

autonomy. The athletes' need for competence (*M*=5.796, *SD*=0.514) and coaches'

competence style (*M*= 6.171, *SD*= 0.679); *t*(27)= -2.919, *p*= 0.007. There was also a

significant difference in the need for athletes' autonomy (*M*=5.539, *SD*=0.549) and

coaches' autonomy style (*M*= 6.345, *SD*= 0.668); *t*(27)= -5.307, *p*= 0.000. There was not

a significant difference between athletes' need for relatedness (*M*=5.836, *SD*=0.5353) and

coaches' relatedness style (*M*= 6.036, *SD*= 0.744); *t*(27)= -1.310, *p*= 0.201.

Table 8

Paired Descriptive Statistics for Coaching Style and Athletes' Needs Satisfaction

		M	N	SD
PAIR 1	Acomp	5.80	28	0.51
	Ccomp	6.17	28	0.68
PAIR 2	Aauto	5.54	28	0.55
	Cauto	6.35	28	0.67
PAIR 3	Arelate	5.84	28	0.54
	Crelate	6.04	28	0.74

Second, variables were tested to see if they were related. This was done with a

Bivariate Correlation Pearson Product Moment Test (see Table 9). If there is a correlation

there may be reason to infer that the coaching styles contribute to athletes' needs

satisfaction. There was significance in only one of the three areas of athletes' needs

satisfaction. However, there was significance in two of the three areas of coaches' styles.

Table 9

Relationships Between Coaching Styles and Athletes' Needs Satisfaction

		ACOMP	AAUTO	ARELATE
CCOMP	Corr.	.377*	-0.113	-0.156
	Sig.	0.048	0.566	0.427
	N	28	28	28
CAUTO	Corr.	.517**	0.138	-0.026
	Sig.	0.005	0.485	0.894
	N	28	28	28
CRELATE	Corr.	0.156	-0.079	0.239
	Sig.	0.428	0.688	0.220
	N	28	28	28

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

An independent sample *t*-test was conducted for coaches and athletes to test for

gender. For coaches, there were a total of 27 coaches that responded to this question.

Seven (25.93%) of the respondents were female coaches and 20 (74.07%) were male

coaches. For athletes, there were a total of 189 that responded to the gender question.

There were 159 (89.13%) female athletes that responded and 30 (15.87%) male athletes.

CHAPTER IV

DISCUSSION

Several findings were discovered in this study. Coaches' styles and athletes'

needs satisfaction were found to have somewhat of a relationship and significance to one

another. Results found that both coaches and athletes tend to rely more on internal

motivations to meet their needs and styles. Some external factors were present; however,

the majority of participants reported a greater number of internal factors.

Implications

This research provided insight into the various styles of coaching and how it is

communicated to the athletes, based on their needs met. Therefore, this research is

significant in that it furthers the understanding of how coaches and athletes communicate

with one another. As seen throughout the literature review and the rationale provided,

research regarding the athlete-coach relationship is extremely important and needed.

Coaching Style, Motivation, and Identity

Research question one was based on coaching styles and coaches' motivations.

The relationship between the athlete and the coach can often-times be seen through the

communication of the coaches' style. Through these styles, research has found that it is

important to look at whom the coaches are relating to their identity factors and how they

identify in relation to coaching and communication outcomes (Gilbert & Trudel, 2008

Pope et al., 2014). The research question looked at identity and coaching styles of

competence, autonomy, and relatedness.

Identity is a complex construct. Ryan and Deci divided identity into three areas: intrinsic, extrinsic, and amotivation (2000). Some internal identity elements were more self-determined including intrinsic, integrated, and identified factors. Some external identity elements focused less on self and more on external identity elements. These include introjected and external factors. Amotivation elements focused more on non-self-determined factors. These factors include elements that may be outside of the locus of control such as, the uncertainties that one may face.

Internal identity and competence coaching styles. This research found that there was a relationship between coach identity and coaching styles. SDT related studies have found that overall, humans possess "intentional behavior to engage in actions that allow them to achieve their desired outcomes" (Stephens & Robertson, 2019, p. 123). Further, it explains that "people vary in how they are best motivated," based on internal, external, and amotivation factors (p. 123). The current study found that the internal motivations for coaches' competence were intrinsic ($r(27) = .408, p < .05$) and integrated ($r(27) = .518, p < .01$). For the competence variable, there was a modest relationship between the internal identities and style. This suggests that's there is a relationship between coaches' competence style and their internal motivations.

Internal identity and autonomy coaching styles. The related internal motivations for the coaches' autonomy style were intrinsic ($r(27) = .518, p < .01$) and integrated ($r(27) = .454, p < .05$). For the autonomy variable, there was a modest relationship between the internal motivations and identity. An autonomous coaching style is one that values their athletes' needs and fosters a supportive environment. This not only gets reflected amongst their athletes, but it creates the kind of culture and environment that coaches work in. It makes sense that this comes from internal

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motivation and one that considers core values. Coaches that report having high autonomy are those that believe in building their staff and athletes up; it is more than just a job to them.

Internal identity and relatedness coaching styles. The related internal motivations for coaches' relatedness style were intrinsic ($r(27) = .703, p < .01$), integrated ($r(27) = .656, p < .01$), and identified ($r(27) = .436, p < .05$). There was a somewhat higher relationship between relatedness coaching style, intrinsic motivations, and integrated motivations. Identified motivations were reported as having a modest degree of relationship with the relatedness style. Meaning, as relatedness goes up, so do the coaches' internal motivations. Coaching is a very relationally established job. Coaches create personal bonds with their athletes which increase certain motivations. Just as athletes are expected to play hard and fight for their team, coaches are expected to do the same. Ideally, the coach sets the identified motivations (the goals) within the team and then builds off of that for the season.

External identity and autonomy coaching styles. Sometimes, introjected factors ($r(27) = .433, p < .05$) come into play. These types of motivations represent pressures. Coaches reported a significant difference between their autonomy style and their feelings of pressure. Autonomous coaches provide rationale and choice to their athletes, servicing them in a way to foster a supportive culture (Mageau & Vallerand, 2003). Building this type of environment can sometimes come with pressures to win and to do well, all the while trying to embrace this calm, supportive culture.

This research did not relate to as many external factors as previous research. However, the introjected factor was the exception in the autonomy coaching style. Drake suggests that a lot of what coaching is has to deal with relating as parents, families, and

bosses (2008). Coaches assume various roles while coaching, pressuring them to communicate in ways that are not always only regarding coaching. With that being said, there are certain demands and situations that warrant certain outcomes in coaching (Hunt & Handsfield, 2013). Although research has said that it is better to look at who the coaches are versus their outcomes (Gilbert & Trudel, 2008), research also notes that certain contingencies and rewards affect the various styles of coaching (McLean et al., 2012). Some of the other external factors may not have shown up as much in this study as previous research. However, even in this research, the introjected factor indicates that external motivations were present. Coaches were tested in a study done by Pope, Hall, and Tobin (2014). They were tested on three categories: athletic development, life skills, and personal growth. Most of the coaches reported that their identity and satisfaction were routed in their athletes (2014).

  Amotivation identity and competence coaching styles. The amotivation factor for coaches' competence was significant but less related. These could be related to uncertainties and lack of control. For the competence variable, there was an indirect relationship with amotivation ($r(27) = -.511, p < .01$). The results show that as competence goes up amotivation goes down and vice versa. This is very consistent with the way coaches are, even just as people. As they assume the important role of training and leading their team, they become confident, which automatically drives uncertainty down. Coaches become comfortable with their role and the group of athletes that they have; however, if there is an increase of uncertainty at all, it would make sense that their feeling of competence would go down. In Stephen's and Robertson's (2019) research, they report that "people with higher levels of internal motivation enjoy learning and show more positive emotions than those who feel their learning is regulated by external forces"

(p. 124). From this, it is clear to see why amotivation (uncertainty) would go down when their internal motivations go up.

Athletes' Needs, Motivation, and Identity

The second research question asks if there is a relationship between athlete need satisfaction from coaching and athlete identity. The relationship between the athlete and the coach can often-times be seen through the communication of athletes' needs satisfaction from their coaches and the athletes' identity. In a study done by Delrue and colleagues (2019), they examined the effects of controlling coaching styles and how it affected certain athletes' needs. Using the Self-Determination Theory, they studied whether some styles work better for some athletes and what styles are warranted upon certain situations. In theory, the SDT supports that "athletes are more likely to persist and thrive when their coaches rely on an autonomy-supportive style rather than on a controlling style" (Delrue et al., 2019, p. 322). The research question looked at athletes' needs satisfaction from coaching styles through competence, autonomy, and relatedness and how it relates to their identity.

Internal identity and athletes' competence needs satisfaction. This research found that there is a relationship between athletes' needs satisfaction and athlete identity. The internal motivations for athletes' competence were intrinsic ($r(192) = .512, p < .01$), integrated ($r(193) = .471, p < .01$), and identified ($r(190) = .467, p < .01$). For the competence variable, there was a modest degree of relationship between the internal motivations and needs satisfaction. This suggests that as athletes' internal motivation, or identity, goes up so does their need satisfaction. These three variables are internal factors according to Stephens and Robertson (2019). As a coaches' competence, autonomy, and relatedness style goes up, athletes reported feeling as if their needs are met. This directly

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relates to an athlete's identity being validated positively, which means that when athletes

feel as if their coach meets this need, their motivations for internal, values, and goals

increase. Being an athlete is its own identity. The way an athlete perceives their identity

in their sport is substantial to who they are (Chen, Snyder, & Magner, 2010). Not only is

this identity based on the individual athlete, but it also comes from other influences

(2010). The communication and the relationship that a coach and an athlete has is

superior to all things that take place; athletes really feed off of their head coaches'

morale. Not only is this identity based on the individual athlete, it also comes from other

influences (2010).

Internal identity and athletes' autonomy needs satisfaction. The internal

motivations for the athletes' autonomy needs were intrinsic ($r(192) = .503$, $p < .01$),

integrated ($r(193) = .442$, $p < .01$), and identified ($r(190) = .421$, $p < .01$). For the

autonomy variable, there was a modest relationship between the internal motivations and

identity. The autonomous style fosters an environment for "athletes [to] perceive the

pervading motivational climate as task-involving," making them "self-aware, and better

resistant [versus] having their motivation undermined by failure and adversity" (Joesaar,

Hein, & Hagger, 2012, p. 258). Studies have found "that autonomy-supportive parents,

relative to controlling parents, have children who are more intrinsically motivated"

(Grolnick, Deci, & Ryan, 1997, p. 148). This study found similar results between

autonomy-focused communication between a coach and an athlete.

Internal identity and athletes' relatedness needs satisfaction. The internal

motivations for athletes' relatedness were intrinsic ($r(192) = .584$, $p < .01$), integrated

($r(193) = .484$, $p < .01$), and identified ($r(190) = .420$, $p < .01$). For the relatedness

variable, there was a modest relationship between the internal motivations and needs

satisfaction. This suggests that as athletes' internal motivation, or identity, goes up so does their relatedness. Other research confirms that relatedness and connectedness are critical for the athlete (Felton & Jowett, 2012; Guzman & Kingston, 2013; Rocchi & Pelletier, 2018; Ryan & Deci, 2000). The communication between the coach and the athlete is really what drives the relatedness factor. Internal motivations are impacted through coaching behavior and the communication the athlete perceives within the relatedness style (Mageau & Vallerand, 2003).

External identity and athletes' competence needs satisfaction. Competency was significantly related to introjected needs ($r(190) = .198, p < .05$). These types of motivations represent external identity pressures. There is no real surprise here, "whether [or] how athletes are affected by autonomy-supportive or controlling coaching may depend not only on the situation at hand, but also on athletes' personal motivation" (Delrue et al., 2019, p. 323).

External identity and athletes' autonomy needs satisfaction. Introjected factors were also related to athletes' autonomy ($r(190) = .301, p < .01$). Pressures can come from "coaches and peers' for support, perceptions, and behaviors that affect the sense of belongingness to others, and recognition for effort and improvement" (Joesaar, Hein, & Hagger, 2012, p.257-8). Once again, athletes may be affected not only by situations, but by their personal motivations (Delrue et al., 2019).

External identity and athletes' relatedness needs satisfaction. There was a significant relationship between relatedness and introjected ($r(190) = .209, p < .01$) and external ($r(189) = .160, p < .05$). While the relationship was significant, it was not as large as other areas. This suggests external factors do not have as large of an impact as the internal factors; however, they are still present. These external motivations may come

from the use of power or certain pressures, rewards, and punishments. These factors outside of the actual sport can cause withdrawal or miscommunication between an athlete and the coach (Mageau & Vallerand, 2003). Sometimes athletes have external motivations that may create a disconnect between the values and the desired behaviors or interests of the teams (Johnson, 1993). Due to such a low significance, the research suggests that the more an athlete feels their needs of relatedness are met, the external motivations may not be as influential.

Amotivation identity and athletes' competence needs satisfaction. The non-self-determined factor for athletes' competence was amotivation ($r(189) = -.315, p < .01$). For the competence variable, there was an indirect relationship with amotivation. The results show that as competence goes up amotivation goes down and vice versa. This seems consistent with the way athletes are, even just as people. As they assume the role of training and being involved on their team, they become confident which automatically drives uncertainty down. Athletes become comfortable with their role in their team and their coaches; however, if there is an increase of uncertainty at all, it would make sense that their feeling of competence would go down.

Amotivation identity and athletes' autonomy needs satisfaction. The non-self-determined factor for athletes' autonomy was amotivation ($r(189) = -.264, p < .01$). For the autonomy variable, there was an indirect relationship with amotivation. The results show that as autonomy goes up, amotivation goes down and as autonomy goes down the uncertainty levels may rise. A similar study found that "the autonomy of coaches' need satisfaction is positively related to their psychological well-being" (Stebbings, Taylor, & Spray, 2011, p. 261). In other words, well-being cannot be attained if someone is feeling

controlled or is in an environment uncertain to them. However, it seems that well-being is increased as an autonomy style increases and amotivation decreases.

Amotivation identity and athletes' relatedness needs satisfaction. Once again, amotivation (r(189) = -.311, p < .01) showed a modest, indirect relationship with the coaching style. Research suggests that as relatedness goes up, amotivation goes down and vice versa. Athletes are inadvertently looking for their needs to be met. Not only through competence and autonomy, but through relatedness and that secure sense of belonging (Deci & Ryan, 2000). When athletes feel like they have this component, it is only natural that their uncertainties would go down.

Coaches' Style and Athletes' Needs Satisfaction

The hypothesis tested to see if there was any significance between coaching style and athletes' need satisfaction. Previous research suggests that there is a deficit in matching coaching styles and athletes' needs satisfaction of those coaching styles. As a step in this direction, this research examined coaching styles and how it relates to athletes' needs satisfaction. The hypothesis was examined in two ways. A dependent sample t-test was done on the research. All of the numbers were high and positive. There was a significant difference between coaching styles and athlete needs satisfaction in competence (p < .01) and autonomy (p < .001). The athletes and coaches reported high competence levels. They reported feeling confident in their ability to perform and carry out the tasks asked of them; however, there was a gap between coaches and athletes. This is consistent with previous research found by Kenow and Williams (1999). They discovered that coaches set the premise and the athletes respond based on their needs being met. Coaches are in charge of communicating a certain culture within the team. There could be a gap between coaches and athletes if athletes do not necessarily buy in

completely or if they have not quite reached those goals yet. Another reason could be attributed to playing time or the rate of development. College athletes are recruited because they can play, but sometimes it takes time to elevate to the college level. This would then contribute to some of the gaps due to athletes having some uncertainties about their roles in the team or their playing time. This is consistent with the negative relationship involving amotivation found in research questions one and two.

Competence coaching style and athletes' needs satisfaction. Relationships were tested between the three styles of coaching against the three needs of athletes. This was done to suggest if coaching styles contribute to athletes' needs satisfactions. The findings show a significant relationship between the coaches' and athletes' competence ($r(26) = .377$, $p < .05$); however, this does not necessarily mean that they affect one another. Some research suggests that coaches' behavior through a competence-supportive environment does have beneficial impacts on their athletes' needs (Mageau & Vallerand, 2003). This may imply that the more confident coaches feel in accomplishing their goals, the more that attitude is communicated towards their team.

Competence allows coaches to apply certain philosophies and processes throughout the team; however, sometimes the athletes may not quite comprehend. This may be the reason for the gap between athlete and coach competence. Although both still reported high, the culture that coaches present may take some time for a complete buy-in with the athletes.

Autonomy coaching style and athletes' needs satisfaction. The findings also suggest that coaches' and athletes' autonomy were significantly different and also related ($r(26) = .517$, $p < .01$). However, this research did not support that they were related. Previous research says that coaches' autonomy-support influences motivations for athlete

performance and needs (Gillet, Vallerand, Amoura, & Baldes, 2010; Mageau & Vallerand, 2003). Autonomy-supported behaviors from coaches impact athletes' motivations and the way they communicate certain behaviors amongst the team. This may be because coaches feel in charge resulting in their athletes to feel a sense of empowerment. "Autonomy-supportive behaviors encourage self-initiated behaviors as well as convey messages of trust and respect" (Mageau & Vallerand, 2003, p. 893). When coaches communicate a certain confidence along with a certain expectation within themselves, it can then be communicated and passed on to the athletes. There is a gap, which might suggest that athletes do feel as if they are able to take some initiative, but they might question the extent. This might be related to the class an athlete is. As a freshman, the role and expectations are very different from those of senior level athletes. As athletes move up in class, their confidence and feeling of empowerment may also grow.

  Relatedness coaching style and athletes' needs satisfaction. This study suggests that there was no significance between coaches' and athletes' relatedness. This could mean that the reported relationships are already on a good level regardless of any of the motivational factors. Meaning that the coaches and athletes who responded feel as if they have a good relationship already, resulting in not reporting any differences. This may suggest that because coaches and athletes reported such high levels for competence and autonomy, there is already an environment facilitating trust and respect, which only strengthens the relationship. Gender may have also been a factor for this. An independent sample *t*-test for coaches and athletes was used to test for gender differences. There were no significant differences in the scores. The fact that the findings were not related may

have to do with the small number of dyads compared. Further investigation needs to be done in this area.

Limitations

There was a total of 28 teams. This limits the range and variety of answers compared to if there was a larger response rate. This resulted in coaches' communication with athletes being limited to a fairly small sample. Additionally, the majority of respondents were female athletes, mainly from softball and volleyball teams. This could potentially result in similar answers across the board due to female related mindsets within the sport. Additionally, the same could be said for coaches except that the dominant gender was male. This might be creating a certain bias towards particular mindsets in sports and in gender. This may have contributed to the lack of significance that showed up for the relatedness style. The sample primarily had male coaches in relation to female athletes.

Research has also been done on this concept of male coaches with female athletes. The majority of coaches being male and the majority of athletes being female in this study, relatedness could be dependent on a ceiling effect. The threshold only allows for so much involvement and relationship when it comes to male coaches with female athletes; further, much research has been done that shows female athletes reported better relationships with female coaches versus male coaches (Fasting & Pfister, 2000). In other words, these research findings might suggest that there might be certain levels of relationships that can be held by male coaches and their female athletes versus the same genders and their athletes.

Future Research Implications

Coaches and athletes affect each other in more ways than one. Coaches naturally will lean towards a certain style of coaching, which directly affects the way an athlete sees their needs as being met. This relationship is super important in sport. The communication within the athlete-coach relationship is substantial above anything else that goes on within the team. As seen throughout the results, as coaching styles and needs satisfaction go up, so do many of the internal motivation factors.

For athletes, this means that the more they see their coaches' styles support the three in the study, the higher their internal motivations. Other research has related this to other motivations to train (Gillet, Vallerand, Amoura, & Baldes, 2010). Interestingly enough, as these styles go up, external factors are not significant except for pressures related to the athletes' identity. This means that athletes' and coaches' identities are more relates to internal motivations more so than external motivations. Amotivations was the one motivation that was found to have an indirect relationship with all of the styles. This should come as no surprise because as styles and needs satisfaction are going up, uncertainty levels are going down for both coaches and athletes (Gillet, Vallerand, Amoura, & Baldes, 2010).

Coaches and athletes are impacted more than just through the internal, external, and amotivation factors. Future research should explore some of these elements (e.g., budgeting, recruiting, and sexual harassment). There are things that go on beyond the field of play that can sometimes leak into the team's system. These factors may exceed a certain threshold resulting in certain styles and motivations to vary. This can come from a variety of reasons; however, the narrowing of this gap is attributed to the ceiling effect (Ettema & Kline, 1977, p. 182). Athletes and coaches work and communicate within a

certain threshold of normative standards. When this threshold is exceeded due to factors outside of the norm, the "ceiling" is exceeded, creating these gaps. Sometimes unforeseen circumstances take place in sport, resulting in unusual behaviors and communication exchanged between coaches and athletes.

Another area of future research should focus on the gender ceiling effect discussed in this study. This research should look to see if a similar ceiling effect is present between female coaches with male athletes. Secondly, although the class of athletes was not a factor in this study, it is something for future research to consider. Thirdly, this study surveyed a mixture of team and individual sports. This may be an area for future research to see if the communication between the athlete and the coach is different in team sports versus individual-based sports. Fourthly, other areas of research should explore these questions. Do certain styles work with certain athletes? Do certain players learn best from certain coaches?

Conclusion

Although there already has been and will continue to be plenty of research done on coaches and athletes, less is known about how the two affect each other. Previously, there has not been much research examining how coaches feel and identify with their role and their teams (Felton & Jowett, 2012; Guzman & Kingston, 2013; Rocchi & Pelletier, 2018). How one coach perceives their style may be different from how their athletes perceive them and vice versa. The current study looked at coaches' perceptions of themselves compared to the perceived needs of their athletes. Additionally, there has not been much research done to examine this type of communication between coaches and athletes using SDT (Bartholomew, Ntoumani, & Thogersen-Ntoumani, 2010). There are many motivations and styles to take into account, which is why it is so important to know

and understand variables that can play a role in influencing coaches and their styles

(Gillet, Vallerand, Amoura, & Baldes, 2010).

Coaches have a job; most are paid to win. Athletes have a job; most are paid to

perform regardless of scholarship or stipend. Together they create this relationship, a type

of feedback loop that works off of one another. This study targeted the connections of

motivations linked to identity and coaches' styles to help further advance understanding

in this area. How do athletes see their coaches, and how does that affect them? The

relationship was the strongest in competence and autonomy amongst coaches and

athletes. Coaches are almost entirely internally motivated. Athletes are internally and

externally motivated in all three areas of needs satisfaction. This may suggest that

coaches need to be more aware of what meets their athletes' needs. Athletes need to be

aware that their coaches may not be able to meet all their needs, suggesting that athletes

may need to get their needs met elsewhere. The athlete-coach relationship and

communication is something that is inevitable. This communication is not just something

that is left on the practice field; it is internalized and affects one's identity more than may

have been thought. As such, this study is a first step in exploring the possibilities and

limitations for the communication within the athlete-coach relationship.

REFERENCES

Allen, J. B., & Shaw, S. (2009). Women coaches' perceptions of their sport

 organizations' social environment: Supporting coaches' psychological needs? *The*

 Sport Psychologist, *23*, 346-66. https://doi.org/10.1123/tsp.23.3.346

Andreff, Wladimir. (2008). Globalization of the sports economy. *Rivista Di Diritto Ed*

 Economia Dello Sport, *4*(3), 13-32.

 http://www.rdes.it/RDES_3_08_ANDREFF.pdf

Barone, E. (2017, August 24). The astronomical cost of kids' sports. *Time*. Retrieved

 from http://time.com/4913284/kids-sports-cost/

Bartholomew, K., Ntoumanis, N., & Thogerson-Ntoumani, C. (2010). The controlling

 interpersonal style in a coaching context: Development and initial validation of a

 psychometric scale. *Journal of Sport & Exercise Psychology*, *32*, 193-216.

 https://doi.org/10.1123/jsep.32.2.193

Bartholomew, K., Ntoumanis, N., & Thogerson-Ntoumani, C. (2011). Self-determination

 theory and the darker side of athletic experience: The role of interpersonal control

 and need thwarting. *Sport and Exercise Psychology Review*, *7*(2), 23-7.

 https://www.researchgate.net/profile/Cecilie_Thogersen-

 Ntoumani/publication/216352315_Self

 determination_theory_and_the_darker_side_of_athletic_experience_The_role_of_

 interpersonal_control_and_need_thwarting/links/0912f50c5aaae69140000000/Sel

f-determination-theory-and-the-darker-side-of-athletic-experience-The-role-of-
interpersonal-control-and-need-thwarting.pdf

Benabou, R., & Tirole, J. (2003). Intrinsic and extrinsic motivation. *Review of Economic Studies*, *70*(3), 489-520. https://doi.org/10.1111/1467-937X.00253

Black, A., & Deci, E. (2000). The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory perspective. *Science Education*, *84*, 740-756. https://doi.org/10.1002/1098-237X(200011)84:6<740::AID-SCE4>3.0.CO;2-3

Bonett, D. G., & Wright, T. A. (2000). Sample size requirements for estimating Pearson, Kendall and Spearman correlations. *Psychometrika*, *65*(1), 23-28. https://link.springer.com/content/pdf/10.1007/BF02294183.pdf

Brettschneider, W. D., & Heim, R. (1997). Identity, Sport, and Youth Development. In K. R. Fox (Ed.), *The physical self: From motivation to well-being* (pp. 205-27). IL: Champaign.

Brewer, B. W., Van Raalte, J. L. & Linder, D. E. (1993). Athletic identity: Hercules' muscles or Achilles' heel? *International Journal of Sport Psychology*, *24*, 237-54. https://psycnet.apa.org/record/1994-03969-001

Brinton. C. S., Hill, B. J., & Ward, P. J. (Spring, 2017). Authoritative coach: Building youth through sport. *Journal of Park and Recreation Administration*, *35*(1), p. 51-65. https://search.proquest.com/docview/2006817230?pq-origsite=gscholar

Cassidy, T., Jones, R., & Potrac, P. (2009). Understanding Athletes' Identities. In T. Cassidy, R. Jones, & P. Potrac (Eds.), *Understanding sports coaching: The social, cultural, and pedagogical foundations of coaching practice* (pp. 93-112). NY: New York.

Chen, S., Snyder, S., & Magner, M. (2010). The effects of sport participation on student-athletes' and non-athlete students' social life and identity. *Journal of Issues in Intercollegiate Athletics*, *3*, 176-93. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.468.4813&rep=rep1&type=pdf

Coach definition and meaning | Collins English Dictionary. (n.d). Retrieved from https://www.collinsdictionary.com/us/dictionary/english/coach

Coaches and Scouts: Occupational Outlook Handbook. (2019). Retreived from https://www.bls.gov/ooh/entertainment-and-sports/coaches-and-scouts.htm

Csikszentmihalyi, M., & Rathunde, K. (1993). The Measurement of Flow in Everyday Life: Toward a Theory of Emergent Motivation. In J. E. Jacobs (Eds.), *Developmental perspectives on motivation* (pp. 57-97). Lincoln: University of Nebraska Press. https://psycnet.apa.org/record/1993-98639-002

Curry, T. J., & Weiss, O. (1989). Sport identity and motivation for sport participation: A comparison between American college athletes and Austrian student sport club members. *Sociology of Sport Journal*, *6*, 257-68. https://doi.org/10.1123/ssj.6.3.257

Deci, E., Eghrari, H., Patrick, B., & Leone, D. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality*, *62*, 119-42. https://doi.org/10.1111/j.1467-6494.1994.tb00797.x

Deci, E., Koestner, R, & Ryan, R. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, *125*, 627-68. https://psycnet.apa.org/buy/1999-01567-001

Deci, E., & Ryan, R. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self determination of behavior. *Psychological Inquiry*, *11*(4), 227-68. https://doi.org/10.1207/S15327965PLI1104_01

Delrue, J., Soenens, B., Morbee, S., Vansteenkiste, M., & Haerens, L. (2019). Do athletes' responses to coach autonomy support and control depend on the situation and athletes' personal motivation? *Psychology of Sport and Exercise*, *43*, 321-332. https://doi.org/10.1016/j.psychsport.2019.04.003

DeVellis, R. F. (2003). *Scale development: Theory and applications* (2nd ed.). Thousand Oaks, CA: Sage.

Dillman, D. A., Eltinge, J. L., Groves, R.M., & Little, R. J. A. (2002). Survey nonresponse in design, data collection, and analysis. In R. M. Groves, D. A. Dillman, J. L. Eltinge, & R. J. A. Little (Eds.), *Survey nonresponse* (pp. 3-26). New York, NY: Wiley.

Drake, D. B. (2008) Finding our way home: Coaching's search for identity in a new era. *Coaching: An International Journal of Theory, Research, and Practice*, *1*(1), 15-26. https://doi.org/10.1080/17521880801906099

Egan, J. (2017, September 10). Poll: Americans spend more than $100 billion on sports. Retrieved from https://www.creditcards.com/credit-card-news/sporting-event-spending-poll.php

Erickson, K., & Côté, J. (2016). A season-long examination of the intervention tone of coach-athlete interactions and athlete development in youth sport. *Psychology of Sport & Exercise*, *22*, 264–272. https://doi.org/10.1016/j.psychsport.2015.08.006

Ettema, J. S. & Kline, F. G. (1977). Deficits, differences, and ceilings: Contingent

conditions for understanding the knowledge gap. *Communication Research*, *4*(2),

179-202. https://doi.org/10.1177/009365027700400204

Fasting, K. & Pfister, G. (2000). Female and male coaches in the eyes of female elite

soccer players. *European Physical Education Review*, *6*(1), 91-110.

https://doi.org/10.1177/1356336X000061001

Felton, L., & Jowett, S. (2012). "What do coaches do" and "how do they relate": Their

effects on athletes' psychological needs and functioning. *Scandinavian Journal of*

Medicine & Science in Sports, 1-10. https://doi.org/10.1111/sms.12029

Fine, G. A. (1979). Small groups and culture creation: The idioculture of little league

baseball teams. *American Sociological Review*, *44*, 733-45.

http://www.jstor.org/stable/2094525

Frederick, C. M. & Morrison, C. S. (1999). Collegiate coaches: An examination of

motivational style and its relationship to decision making and personality. *Journal*

of Sport Behavior, *22*(2), 221-33. Retrieved from

https://search.proquest.com/docview/215869587/fulltextPDF/6E46F12730434F40P

Q/1?accountid=7006

Gagne, M. & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal*

of Organizational Behavior, *26*, 331-62. https://doi.org/10.1002/job.322

Gilbert, W. D. & Trudel, P. (2008). Role of the coach: How model youth team sport

coaches frame their roles. *The Sport Psychologist*, *18*, 21-43.

https://doi.org/10.1123/tsp.18.1.21

Gillet, N., Vallerand, R. J., Amoura, S., & Baldes, B. (2010) Influence of coaches'

autonomy support on athletes' motivation and sport performance: A test of the

hierarchical model of intrinsic and extrinsic motivation. *Psychology of Sport and Exercise*, *11*, 155-161. https://doi.org/10.1016/j.psychsport.2009.10.004

Godin, G. (2011). Commentary: The Godin – Shephard leisure-time physical activity questionnaire. *Health and Fitness Journal of Canada*, *4*, 18-22. https://doi.org/10.14288/hfjc.v4i1.82

Grolnick, W. S., Deci, E. L., & Ryan, R. M. (1997). Internalization Within the Family. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory* (pp. 135-61). New York: Wiley.

Gunnell, K. E., Crocker, P. R. E., Wilson, P. M., Mack, D. E., & Zumbo, B. D. (2013). Psychological need satisfaction and thwarting: A test of Basic Psychological Needs Theory in physical activity contexts. *Psychology for Sport and Exercise*, *14*, 599-607. https://doi.org/10.1016/j.psychsport.2013.03.007

Guzman, J., & Kingston, K. (2013). Coaches' need satisfaction and self-determination predict perceived promotion of athletes' well-being. *Research Gate*, *2*(2), 1-14. Retrieved from https://www.researchgate.net/profile/Jose_Guzman4/publication/236209179_Coaches'_need_satisfaction_and_self-determination_predict_perceived_promotion_of_athletes'_well-being/links/02e7e516fbd7cb2284000000/Coaches-need-satisfaction-and-self-determination-predict-perceived-promotion-of-athletes-well-being.pdf

Hibbert, K. M., Heydon, R. M., & Rich, S. J. (2008). Beacons of light, rays, or sun catchers? A case study of the positioning of literacy teachers and their knowledge in neoliberal times. *Teaching and Teacher Education*, *24*, 303-15. https://doi.org/10.1016/j.tate.2007.01.014

Hollembeak, J., & Amorose, A. J. (2005). Perceived coaching behaviors and college

    athlete' intrinsic motivation: A test of self-determination theory. *Journal of*

    Applied Sport Psychology, *17*, 20-36.

    https://doi.org/10.1080/10413200590907540

Horn, T. S. (2002). Coaching effectiveness in sport domain. In T. S. horn (Ed.), *Advances*

    in sport psychology, (pp.309-54). Champaign, Il: Human Kinetics.

Hunt, C. S., & Handsfield, L. J. (2013). The emotional landscapes of literacy coaching:

    Issues of identity, power, and positioning. *Journal of Literacy Research*, *45*(1),

    47-86. https://doi.org/10.1177/1086296X12469969

Joesaar, H., Hein, V., & Hagger, M. (2012). Youth athletes' perception of autonomy

    support from the coach, peer motivational climate and intrinsic motivation in

    sport setting: One-year effects. *Psychology of Sport and Exercise*, *13*, 257-62.

    https://doi.org/10.1016/j.psychsport.2011.12.001

Johnson, F. A. (1993). *Dependency and Japanese socialization*. New York: NYU Press.

Kaplowitz, M. D., Hadlock, T. D., & Levine, R. (2004). A comparison of web and mail

    survey response rates. *Public Opinion Quarterly*, *68*(1), 94-101.

    https://doi.org/10.1093/poq/nfh006

Katz, L., & Assor, A. (2007). When choice motivates and when it does not. *Educational*

    Psychology Review. *19*, 429-42. Retrieved from

    https://link.springer.com/article/10.1007/s10648-006-9027-y

Kenow, L., & Williams, J. M. (1999, June). Coach-athlete compatibility and athlete's

    perception of coaching behaviors. *Journal of Sport Behavior*, *22*, 251-59.

    Retrieved from

http://www1.udel.edu/ICECP/resources/coachingstyles/Coach%20athlete%20com
patibility.pdf

Knight, J. (2011). What good coaches do. *Educational Leadership. 69*(2). 18-22.
Retrieved from
http://www.elachieve.org/images/cm/reading/instructional_coaching/cm_read_kni
ght_coaching_article.pdf

Koebler, J. (2011, September 2). High School Sports Participation Increases for 22nd
Straight Year. Retrieved from https://www.usnews.com/education/blogs/high-
school-notes/2011/09/02/high-school-sports-participation-increases-for-22nd-
straight-year

Kutz, S. (2017, September 12). $100 billion – that's how much Americans spent on
sports over the past 12 months. Retrieved from
https://www.marketwatch.com/story/heres-how-much-americans-spend-on-
sports-in-one-chart-2017-09-11

Lonsdale, C., Hodhe, K., & Rose, E. (2009). Athlete burnout in elite sport: A self-
determination perspective. *Journal of Sports Sciences*, *27*(8), 785-95.
https://doi.org/10.1080/02640410902929366

Lynch, J., & Ferguson, K. (2010). Reflections of elementary school literacy coaches on
practice: Roles and perspectives. *Canadian Journal of Education*, *33*(1), 199-277.
Retrieved from https://eric.ed.gov/?id=EJ883529

Macias, W., Springston, J. K., Lariscy-Weaver, R. A., & Neustifter, B. (2012). A 13-year
content analysis of survey methodology in communication related journals.
Journal of Current Issues & Research in Advertising, *30*(1), 79-94.
https://doi.org/10.1080/10641734.2008.10505240

Macri, K. J. (2012). Not just a game: Sport and society in the United States. *Inquiries Journal/Student Pulse*, *4*(8). Retrieved from http://www.inquiriesjournal.com/articles/1664/not-just-a-game-sport-and-society-in-the-united-states

Mageau, G. A., & Vallerand, R. J. (2003). The coach-athlete relationship: A motivational model. *Journal of Sports Sciences*, *21*, 883-904. https://doi.org/10.1080/0264041031000140374

Manfreda, K. L., Bosnjak, M., Berzelak, J., Haas, I., Vahovar, V. (2006). Webs surveys versus other survey modes: A meta-analysis comparing response rates. *International Journal of Markey Research*, *50*(1), 79-104. https://doi.org/10.1177/147078530805000107

McLean, K. N., Mallet, C. J., & Newcombe, P. (2012). Assessing coach motivation: The development of the coach motivation questionnaire (CMQ). *Journal of Sport & Exercise Psychology*, *34*, 184-207. https://doi.org/10.1123/jsep.34.2.184

Moen, F., Hoigaard, R., & Peters, D. M. (2014). Performance progress and leadership behavior. *International Journal of Coaching Science*, *8*(1), 69-79. Retrieved from https://www.researchgate.net/profile/Rune_Hoigaard/publication/260713122_Performance_Progress_and_Leadership_Behavior/links/541190eb0cf264cee28b4016/Performance-Progress-and-Leadership-Behavior.pdf

NCAA. (2019a). Emerging Sports for Women Process Guide. Retrieved from http://ww.ncaa.org/about/resources/inclusion/ncaa-emerging-sports-women-process-guide

NCAA. (2019b, April 9). Probability of Competing Beyond High School. Retrieved from

    http://www.ncaa.org/about/resources/research/probability-competing-beyond-

    high-school

Ntoumanis, N., & Biddle, S. J. H. (1999). A review of motivational climate in physical

    activity. *Journal of Sports Sciences*, *17*, 643-65.

    https://doi.org/10.1080/026404199365678

Ntoumanis, N. (2001). Empirical links between achievement goal theory and self-

    determination theory in sport. *Journal of Sports Science*, *19*, 397-409.

    https://doi.org/10.1080/026404101300149357

Occhino, J. L., Mallet, C. J., Rynne, S. B., & Carlisle, K. N. (2014). Autonomy-

    supportive pedagogical approach to sports coaching: Research, challenges, and

    opportunities. *International Journal of Sports Science & Coaching*, *9*(2), 402-15.

    https://doi.org/10.1260/1747-9541.9.2.401

Pierce, G. R., Sarason, B. R., & Sarason, I. G. (1992). General and specific support

    expectations and stress as predictors of perceived supportiveness: An

    experimental study. *Journal of Personality and Social Psychology*, *63*(2), 297-

    307. http://dx.doi.org/10.1037/0022-3514.63.2.297

Poczwardowski, A., Barott, J. E., & Henschen, K. P. (2002). The athlete and coach: Their

    relationship and it meaning. Results of an interpretive study. *International

    Journal Sport Psychology*, *33*, 116-40. Retrieved from

    https://www.researchgate.net/profile/Artur_Poczwardowski/publication/23249316

    7_The_athlete_and_coach_Their_relationship_and_its_meaning_Results_of_an_i

    nterpretive_study/links/54fa23ae0cf2040df21b1c7d.pdf

Pope, J. P., Hall, C. R., & Tobin, D. (2014) How do coaches identify with their role as a

    coach? Exploring coach identity through a role identity theory lens. *Identity: An*

    International Journal of Theory and Research, *14*, 136-52.

    https://doi.org/10.1080/15283488.2014.897951

Pope, S. (2012). The love of my life: The meaning and importance of sport for female

    fans. *Journal of Sport and Social Issues*, *37*(2), 176-95.

    https://doi.org/10.1177/0193723512455919

Rieke, M., Hammermeister, J., & Chase, M. (2008). Servant leadership in sport: A new

    paradigm for effective coach behavior. *International Journal of Sports Science &*

    Coaching, *3*(2), 227-39. https://doi.org/10.1260/174795408785100635

Reinard, J. C. (2007). Design of Descriptive Empirical Research in Communication. In J.

    C. Reinard (Ed.). *Introduction to communication research* (4th ed.). (pp. 344-94).

    Boston: McGraw-Hill

Reinboth, M., Duda, J. L., & Ntoumanis, N. (2004). Dimensions of coaching behavior,

    need satisfaction, and the psychological and physical welfare of young athletes.

    Motivation and Emotion, *28*(3), 297-313.

    https://doi.org/10.1023/B:MOEM.0000040156.81924.b8

Rocchi, M., & Pelletier, L., & Couture, A. L. (2013) Determinants of coach motivation

    and autonomy supportive coaching behaviors. *Psychology of Sport and Exercise*.

    14, 852-9. https://doi.org/10.1016/j.psychsport.2013.07.002

Rocchi, M., & Pelletier, L. (2018). How does coaches' reported interpersonal behavior

    align with athletes' perceptions? Consequences for female athletes' psychological

    needs in sport. *Sport, Exercise, and Performance Psychology*, *7*(2), 141-54.

    http://dx.doi.org/10.1037/spy0000116

Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization. *Journal of Personality and Social Psychology*, *57*(5), 749-61. http://dx.doi.org/10.1037/0022-3514.57.5.749

Ryan, R. M. & Deci, E. L. (2000) Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68-78. http://dx.doi.org/10.1037/0003-066X.55.1.68

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*, 141-25. https://doi.org/10.1146/annurev.psych.52.1.141

Ryan, R. M., & Frederick, C. M. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, *65*, 529-65. https://doi.org/10.1111/j.1467-6494.1997.tb00326.x

Ryan, R. M., Kuhl, J., & Deci, E. L. (1997). Nature and autonomy: Organizational view of social and neurobiological aspects of self-regulation in behavior and development. *Development and Psychopathology*, *9*(4), 701-28. https://doi.org/10.1017/S0954579497001405

Ryan, R. M., Rigby, C. S., & Przybylski, A. (2006). The motivational pull of video games: A self-determination theory approach. *Clinical and Social Sciences in Psychology*, *30*, 347-63. https://doi.org/10.1007/s11031-006-9051-8

Sawe, B. E. (2016, September 16). The Most Popular Sports in the World. Retrieved from https://www.worldatlas.com/articles/what-are-the-most-popular-sports-in-the-world.html

Schon, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

Shaver, K. J. (1975). *An introduction to attribution processes*. Cambridge, MA: Winthrop.

Sheldon, K. M., & Filak, V. (2008). Manipulating autonomy, competence, and relatedness support in a game-learning context: New evidence that all three needs matter. British *Journal of Social Psychology*, *47*(2), p. 267-83. https://doi.org/10.1348/014466607X238797

Shell, A. (2017, September 5). Why families stretch their budgets for high-priced youth sports. Retrieved from https://www.usatoday.com/story/money/2017/09/05/why-families-stretch-their-budgets-high-priced-youth-sports/571945001/

Smith, S. L., Fry, M. D., Ethington, C. A. & Li, Y. (2005). The effect of female athletes' perceptions of their coaches' behaviors on their perceptions of the motivational climate. *Journal of Applied Sport Psychology*, *17*, 170-7. https://doi.org/10.1080/10413200590932470

Smoll, F. L., & Smith, R. E. (1989). Leadership behaviors in sport: A theoretical model and research paradigm. *Journal of Applied Social Psychology*, *19*, 1522-51. https://doi.org/10.1111/j.1559-1816.1989.tb01462.x

Smoll, F., & Smith, R. (2006). Enhancing coach-athlete relationships: Cognitive-behavioral principles and procedures. In J. Dosil (Eds), *The sport psychologist's handbook: A guide for sport-specific performance enhancement* (pp. 19-37). Chichester, United Kingdom: John Wiley & Sons Ltd.

Sports Agent Responsibility and Trust. (n.d). Retrieved from http://uscode.house.gov/view.xhtml?path=/prelim@title15/chapter104&edition=prelim

Stebbings, J., Taylor, I. M., & Spray, C. M. (2011) Antecedents of perceived coach
   autonomy supportive and controlling behaviors: Coach psychological need
   satisfaction and well-being. *Journal of Sport & Exercise Psychology*, *33*, 255-72.
   https://doi.org/10.1123/jsep.33.2.255

Stephens, K. K., & Robertson, B. W. (2019). Mobile devices in training: What are our
   trainees doing and what can trainers do? In J. D. Wallace & D. Becker
   (Eds.). *Handbook of Communication Training* (pp. 120-133). New York, NY:
   Routledge

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston,
   MA: Allyn and Bacon.

Vallerand, R. (2000). Deci and Ryan's self determination theory: A view from the
   hierarchical model of intrinsic and extrinsic motivation. *Psychological Inquiry*, *11*,
   p. 312-18. Retrieved from
   http://ezproxy.acu.edu:2323/ehost/detail/detail?vid=0&sid=54dbed2c-c690-4e83-
   8758-
   8140e5b0470f%40sessionmgr4008&bdata=JkF1dGhUeXBlPXNzbyZzaXRlPWVo
   b3N0LWxpdmUmc2NvcGU9c2l0ZQ%3d%3d#db=pbh&AN=3926583

Vallerand, R. J., & Losier, G. F. (1999). An integrative analysis of intrinsic and extrinsic
   motivation in sport. *Journal of Applied Sport Psychology*, *11*, 142-69.
   https://doi.org/10.1080/10413209908402956

Vargas-Tonsing, T. M., Myers, N. D., & Feltz, D. L. (2004). Coaches' and athletes'
   perceptions of efficacy-enhancing techniques. *The Sport Psychologist*, *18*, 397-
   414. https://doi.org/10.1123/tsp.18.4.397

Webb, W. M., Nasco, S. A., Riley, S., & Headrick, B. (1998). Athlete identity and

    reactions to retirement from sports. *Journal of Sport Behavior*, *21*(3), 338-62.

    Retrieved from

    https://www.researchgate.net/profile/Suzanne_Altobello/publication/284285537

Winter, D.J. (2013). Using the student's *t*-test with extremely small sample sizes.

    Practical Assessment Research, and Evaluation, *18*(10), 1-12. Retrieved from

    https://www.researchgate.net/profile/Joost_De_Winter/publication/274756954_

Wrench, J. S., Thomas-Maddox, C., Richmond, V. P., & McCroskey, J. P. (2016). Surve

    Research. In J. S. Wrench, C. Thomas-Maddox, V. P. Richmond, & J. P.

    McCrosky (Eds.), *Quantitative research methods for communication: A hands-on*

    approach (3rd ed.). New York: Oxford University Press.

APPENDIX A

IRB Approval

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

Dear Casey-May,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled, "COACHING STYLES AND ATHLETES' NEED SATISFACTION AND IDENTITY: AN ANALYSIS OF ATHLETE-COACH RELATIONSHIP",

(IRB# 19-047) is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

APPENDIX B

Mandatory Informed Consent

Read and Click at Bottom to Indicate Voluntary Participation

<u>Principal Investigator</u>
Casey-May Huff
Abilene Christian University
Address 1600 Campus Court, Abilene, TX 79601

DESCRIPTION OF THE STUDY
If you volunteer to participate in this study, we would ask you to complete a survey
evaluating psychological need satisfaction and exercise and coaching motivation. This
study is examining certain styles coaches think they have and how the athletes perceive
these styles and identify with them.

DURATION OF PARTICIPATION
Survey length varies depending on participants with most participants being able to
complete the survey in 5 to 10 minutes.

RISKS/BENEFITS TO THE PARTICIPANT
This study presents no risks to you. All personal information and/or results from the
questionnaires will confidential for the coaches and anonymous for the athletes.

There are no foreseen risks associated with this study. If you have any concerns about the
risks or benefits of participating in this study, you can contact Casey-May Huff
at cjh15b@acu.edu.

COSTS AND PAYMENTS TO THE PARTICIPANT
There are no costs to you or monetary compensation for participating in this study.

CONFIDENTIALITY AND PRIVACY
The researchers will keep your information, and the results of the tests, confidential. No records with name will be kept unless you choose to provide them. All information obtained in this study is strictly confidential or anonymous unless disclosure is required by law.

PARTICIPANT'S RIGHT TO WITHDRAW FROM THE STUDY
You have the right to refuse to participate in this study or withdraw from it at any time. You will not lose any legal claims, rights or remedies by signing this form and by your participation in this research study.

VOLUNTARY CONSENT BY PARTICIPANT
I fully understand the contents of this document and voluntarily consent to participate in the research study entitled "Coaching Styles and its Effects on Athletes' Perceptions and Identity: An Analysis of Athlete-Coach Relationship." If I have any questions in the future about this study or content you may contact the principal investigator or Seaver IRB Chairperson, Megan Roth, (325) 674-2885. This consent ends at the conclusion of this study. If you have any questions about the PI or study protocols, address questions to Seaver IRB Chairperson, Megan Roth, (325) 674-2885.

By clicking below, I acknowledge to have read the consent form, I am at least 18 years old, and I voluntarily agree to participate in this research study.

- Yes

- No

APPENDIX C

Athletes' Survey

PNSE (athletes) (1= False; 6= True)

Competence Satisfaction

1. I feel that I am able to complete my sport even when it is personally challenging.
2. I feel confident I can do even the most challenging activities in my sport.
3. I feel confident in my ability to perform activities in my sport that personally challenge me.
4. I feel good about the way I am able to complete challenging tasks in my sport.
5. I feel like I am capable of doing even the most challenging activities in my sport.
6. I feel capable of completing activities in my sport that are challenging to me.

Autonomy Satisfaction

1. I feel like I am in charge of my athletic decisions.
2. I feel free to make my own athletic decisions.
3. I feel free to do physical activity in my own way.
4. I feel like I have a say in choosing the sports that I do.
5. I feel free to choose which sport I participate in.
6. I feel like I am the one who decides what sport I do.

Relatedness Satisfaction

1. I feel attached to my teammates because they accept me for who I am.
2. I feel I share a common bond with people who are important to me when we practice or play our sport together.
3. I feel close to my teammates who appreciate how difficult our sport can be.
4. I feel a sense of camaraderie with my teammates because we do our sport for the same reason.

5. I feel connected to the people who I interact with while we practice and play our sport together.

6. I feel like I get along well with other people who I interact with while we practice and play our sport together.

CMQ (athletes) (1= Not true at all; 7= Very true)

Stem: Why do you play your sport?

Intrinsic

1. Because I find it stimulating
2. Because I get a good feeling out of it
3. Because I enjoy the effort I invest
4. Because I enjoy the interaction with my teammates

Integrated

1. Because being an athlete is fundamental to who I am
2. Because being an athlete is integral to my life
3. Because it personifies my values and beliefs

Identified

1. Because it contributes to my development as a person
2. Because it is moving me toward my personal goals
3. Because it allows me to achieve my personal goals

Introjected

1. Because I don't want to let my coaches down
2. Because if I quit it would mean I'd failed
3. Because I feel responsible for the coach's performance
4. Because I feel pressure from myself to win

External

1. To be respected by others
2. To get recognition from others
3. Because I want to be appreciated by others
4. Because I like the extrinsic (ie. fame) rewards associated with winning

<u>Amotivation</u>

1. I often think my athletic efforts are a waste of time.
2. Sometimes I don't know why I play anymore
3. Sometimes I feel the costs outweigh the benefits
4. Sometimes I question my desire to continue playing.

Does your coaches' style meet your needs? (1= Strongly Disagree; 5= Strongly Agree)

Survey aside, briefly write why you play this sport. (Please be as candid as you are able, answers are confidential or anonymous)

Choose what gender you are:

1. Female
2. Male
3. Other

Are you 18 years of age or older?

1. Yes
2. No

How long have you played your sport?

APPENDIX D

Coaches' Survey

<u>PNSE (coaches)</u> (1= False; 6= True)

<u>Competence Satisfaction</u>

1. I feel that I am able to coach my sport even when it is personally challenging.
2. I feel confident I can do even the most challenging tasks coaching my sport.
3. I feel confident in my ability to carry out activities in my sport that personally challenge me.
4. I feel good about the way I am able to complete challenging tasks coaching my sport.
5. I feel like I am capable of doing even the most challenging tasks in my sport.
6. I feel capable of completing tasks in my sport that are challenging to me.

<u>Autonomy Satisfaction</u>

1. I feel like I am in charge of my coaching decisions.
2. I feel free to make my own coaching decisions.
3. I feel free to coach in my own way.
4. I feel like I have a say in choosing how I coach.
5. I feel free to choose which sport I coach.
6. I feel like I am the one who decides what sport I coach.

<u>Relatedness Satisfaction</u>

1. I feel attached to my team because they accept me for who I am.
2. I feel I share a common bond with people who are important to me when I coach practice or games.
3. I feel close to my team who appreciate how difficult our sport can be.
4. I feel a sense of camaraderie with my team because we do our sport for the same reason.

5. I feel connected to the people who I interact with while I coach practice and games.

6. I feel like I get along well with other people who I interact with while we practice and play our sport.

CMQ (coaches) (1= Not true at all; 7= Very true)

Stem: Why do you coach your sport?

Intrinsic

1. Because I find it stimulating
2. Because I get a good feeling out of it
3. Because I enjoy the effort I invest
4. Because I enjoy the interaction with my team

Integrated

1. Because being a coach is fundamental to who I am
2. Because being a coach is integral to my life
3. Because it personifies my values and beliefs

Identified

1. Because it contributes to my development as a person
2. Because it is moving me toward my personal goals
3. Because it allows me to achieve my personal goals

Introjected

1. Because I don't want to let my team down
2. Because if I quit it would mean I'd failed
3. Because I feel responsible for the athlete's performance
4. Because I feel pressure from myself to win

External

1. To be respected by others
2. To get recognition from others
3. Because I want to be appreciated by others
4. Because I like the extrinsic (i.e., fame) rewards associated with winning

<u>Amotivation</u>

1. I often think my coaching efforts are a waste of time.

2. Sometimes I don't know why I coach anymore

3. Sometimes I feel the costs outweigh the benefits

4. Sometimes I question my desire to continue coaching.

Does your coaching style meet your athletes' needs? (1= Strongly Disagree; 5= Strongly Agree)

Survey aside, briefly write why you coach this sport. (Please be as candid as you are able, answers are confidential or anonymous)

Choose what gender you are:

1. Female

2. Male

3. Other

Are you 18 years of age or older?

1. Yes

2. No

How long have you coached your sport?