RELATIONAL EFFICACY AND SOCIAL SUPPORT IN ATHLETICS

by

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Social support is critical to athletes' mental health. Previous research has demonstrated that social support reduces burnout in collegiate student athletes while increasing overall well-being (Defreese & Smith, 2014). Despite the well-documented importance of social support in athletes' life, particularly from teammates, little research has been undertaken to investigate how a person's belief in a teammate's athletic potential is connected to the amount of social support provided to members of an individual's training group. In terms of 'belief', Lent and Lopez (2002) proposed the tripartite model of efficacy beliefs. This model contained three different types of efficacy beliefs: self-efficacy (i.e., an individual's belief in themselves), other-efficacy (an individual's belief in another person), and relation inferred self-efficacy (an individual's perception about how another person views them). **PURPOSE:** The purpose of this study was to gain a better understanding of relational effects among teammates. Essentially, the researchers sought to examine how other- efficacy relates to social support provided by teammates, how that received social support relates to relation inferred self-efficacy, and how relation inferred self-efficacy relates to the self-efficacy of the athlete. **METHODS:** Participants included male (n = 44, 36.4%) and female (n = 67, 55.4%) athletes with an age range of 17-23 (M_{Age} = 20.28 years, SD_{Age} = 1.51). Athletes were required to complete a survey containing social support (i.e.,

perceived and provided tangible, esteem, emotional, and informational support), (i.e., self-efficacy, other-efficacy, and relation inferred self-efficacy), and demographic measures. **RESULTS**: Multiple linear regressions were used to test the relationships between each variable. Other-efficacy was found to significantly predict provided tangible ($\beta = .31$, $p = <.001$), emotional ($\beta = .26$, $p = .004$), and esteem social support ($\beta = .24$, $p = .008$). Provided informational social support was not significantly predicted by other-efficacy ($\beta = .12$, $p = .162$). The four types of received social support did not significantly predict relation inferred self-efficacy (RISE; $\beta = -.06 - .180$, $p = .138 - .596$). Finally, relation inferred self-efficacy predicted self-efficacy ($\beta = .66$, $p = <.001$). **CONCLUSION:** According to the present study, those who are confident in their teammate's talents are more likely to supply them with social support. Furthermore, a teammate's confidence in an individual predicts the amount of emotional comfort, self-confidence building gestures, and tangible experiences they provide.

RELATIONAL EFFICACY AND SOCIAL SUPPORT IN ATHLETICS

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DEDICATION

I dedicate my thesis to the version of me that is close to giving up. You are delayed but not denied. Even on your worst days, you are worth it.

I dedicate this thesis to my parents who have supported me in every facet of life. Your love, support, and advice has carried me through every obstacle. I know grandpa and grandma would have loved every second of this dad.

To my brother and sister, your distant prayers and quiet resolve inspire me every day and keep me going. I am truly blessed to be your little brother and my only goal is to make you both proud.

To Seima, Jair, Kayden, Kamden, and Saraiyah. Don't let anyone tell you can't be something. Don't let anyone make you feel lesser than. Shoot for the moon and you will land among the stars, trust me.

To Gabby. You are my rock and have kept me going especially over these past two years. I don't make it to this point without you. Thank you for keeping me steady, for being a soundboard for my feelings, and knowing how to bring be back to earth.

Lastly, to the woman who waited for me. I plan to make sure my story is one worth telling when we meet again.

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To Tyler and Ajala, thank you for your friendship and encouragement over these past two years. Through the sleepless nights, endless edits, and numerous amounts of meetings, we've became close, and I truly love you both. I wish you both nothing, but success and I am blessed to have been a part of each of you guys' journey.

Finally, to East Carolina University. Thank you for making me a better scholar and man. I am proud to be able to call myself an alumnus of this university. Go Pirates.

Table of Contents

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

Student-athletes face many challenges and obstacles in their personal and professional lives. Compared to their nonathlete counterparts, student-athletes delegate approximately 40 hours a week of training, in addition to managing rigorous academic loads, competing, and navigating personal relationships. Athletes have particular pressures because of their athletic position, including high time demands, injuries, and confrontations with their coaches. It has been shown that this lifestyle puts an abundance of stress on student-athletes (Kimball & Freysinger, 2003; Papanikolaou et al., 2003). Evidence shows that the confluence of these several stressors have a detrimental impact on the wellbeing of college student athletes. For instance, studies have shown the stresses of participating in sports, such as the need to succeed, excessive anxiety, frustration, conflict, and fear have a significant impact on athletes' mental and emotional health (Kimball & Freysinger, 2003; Papanikolaou et al., 2003). Many athletes report various physical symptoms of stress such as sleep insomnia, muscle tension, headaches, and occasional digestive problems (Humphrey et al., 2000). Athletes also low self-efficacy and high psychological distress (Hudd et al., 2000). With such a constrained schedule and many responsibilities, student-athletes tend to be deprived of needed social interactions from peers (Hudd et al., 2000)

According to Reis (2001), social interactions are essential for maintaining psychological health. How those peer relationships are seen experienced can have an impact on how stress and health-related outcomes are related (Cohen, Underwood, & Gottlieb, 2000). Athlete social perceptions are contextually relevant and have a unique ability to influence interactions among athlete's psychological health factors in the sporting environment. As a result, it is important to consider that many factors may be moderated by athletes' perceptions of social support and favorable interpersonal relationships. Social support is defined as support or comfort given to

others, usually to aid in coping with biological, psychological, and social pressures. According to Bianco and Eklund (2001), the concept of social support is broad and includes functional facets of interpersonal interactions (Cohen & Wills, 1985). The specific purposes that interpersonal relationships provide are referred to as functional features (Cohen, 1988). Within the functionality of support there are two dividing concepts: support provided (provided social support) and perceived availability of support (perceived social support). There are also four different types of social support: Emotional, Informational, Tangible, and Esteem social support (Langford et al., 1997). Emotional support is defined as expressions of empathy and concern for another individual. Informational support is defined as providing advice, information and suggestions to a given situation. Tangible support is defined as physically providing services or help to an individual. Lastly, Esteem support is defined as communication that enhances an individuals' confidence, skills, and sense of belonging. Received social support). The present study focuses on all of these forms/types as they associate with relational efficacy beliefs. These efficacy beliefs being self-efficacy (i.e., self-confidence), other-efficacy (i.e., confidence in others), and relation inferred self-efficacy (i.e., perception about what others think about you).

Previous studies have shown that higher social support relates to decreased competitive stress, burnout , anxiety, and depression (Crocker, 1992; Gould et al., 1996). Social support also relates to increased recovery from injury (Smith et al., 1990) and overall well-being in collegiate student-athletes (Defreese & Smith, 2014). Social interactions can be categorized into two different types. A constructive athlete social experience is one that involves social interactions that are intended to produce positive results (i.e., social support; Bianco & Eklund, 2001). A negative athlete social experience is defined by unpleasant social interactions that are unwelcome, invasive, unhelpful, insensitive, or rejecting (Newsom, et al., 2005). Research has found that social support

is one type of social interaction that shapes athletes' psychological experiences (Smith, 1986). Social connection is pivotal not only to student-athlete health, but also the understanding and adaptation of sport skills (i.e., the understanding and development of one's skills within sport; Thoits, 2011; Uchino, 2004; Umberson & Montez, 2010). Due to this, it is easy to recognize the role social support plays in how athletes develop, communicate, and perform. Being on a team and being a teammate requires increased communication skills and amounts of provided support that vary across time and situation to overcome challenges. Team sports, such as football or soccer, while being physically challenging, incorporate the added element of teammate interaction. Overall, previous research suggests that the amount at which an individual perceives social support from their teammates correlates with physical/mental health-outcomes and overall athletic performance (Smith, 1986; Sheridan, et al. 2014).

Despite the documented importance of social support in athlete's lives, specifically from teammates, little research has been conducted to examine how a one's belief in a teammate's athletic ability is related to the amount of social support provided to members or one's training group. To fill this research gap, the purpose of this study was to gain a better understanding of relational effects among teammates. Essentially, the researchers sought to examine how other-efficacy relates to social support provided by teammates, how that received social support relates to relation inferred self-efficacy, and how relation inferred self-efficacy relates to the self-efficacy of the athlete. Self-efficacy is defined as an individual's belief/confidence in themselves, while other-efficacy is defined as someone else's belief in an individual (Lent & Lopez, 2002). For example, self-efficacy can be considered an athlete's belief in themself to perform on race day and other-efficacy can be considered an athlete's belief in their teammate to be the anchor on a relay. Relation-Inferred self-efficacy (RISE) is defined as an individuals' perception of another's belief

in them (Lent & Lopez, 2002). For example, an athlete's belief that their coach does not believe in them because they do not get taken to the bigger track meets is RISE. The findings of this study will allow us to research social support from a different angle. More specifically, how the confidence teammates have in an athlete (other-efficacy) can relate to the amount of social support they provide to said athlete. This amount of support could relate to the athlete's perceived belief that their teammate has in them (RISE), which could relate to their belief in themselves (self-efficacy). This creates a better understanding of relational effects among teammates and how social support can build or diminish an athlete's self-efficacy and mental health.

This study is critical as the results can impact how teammates treat and work with each other, in hopes of increasing athlete's mental well-being in and out of sport. The anticipated outcome of this study is to determine the association between other-efficacy of teammates, the social support they provide to an athlete, how an athlete perceives the support and intercepts their teammates feelings about them (RISE) and that specific athlete's self-efficacy. There is expected to be a strong correlation between other-efficacy and social support. If there is a strong correlation between these factors, further research can be conducted to help inform athletes of the impact that their relationships and actions can have on one another on and off the field. This is especially relevant to athlete mental health. The next chapter will thoroughly cover the literature regarding social support, self-efficacy, other-efficacy, and RISE. The purpose of this study was to gain a better understanding of relational effects among teammates. As shown in Table 1 (e.g., Summary of the study): the hypotheses for this study are that (1) other-efficacy would predict the amount of provided social support, (2) amount of perceived social support would predict RISE, (3) and RISE would predict self-efficacy. Figure 1 is an overview of the study as teammate's belief in an individual (other-efficacy) is expected to be associated with

provided social support (i.e., giving advice), perceived social support with relation-inferred self-efficacy, and finally, relation-inferred self-efficacy with self-efficacy (an individual's belief in their own ability). While no literature has stated that other-efficacy would positively predict provided social support, researchers have hinted towards other-efficacy having a type of correlation with social support. Though not statistically supported, this is a common phenomenon within athletics.

Table 1

Summary of the Study

Research Questions	Hypotheses	Analyses (Regressions)
1. How does Other-Efficacy associate with provided Social Support?	Other-Efficacy would positively influence the amount of provided Social Support	Other-Efficacy ---> Tangible Other-Efficacy ---> Esteem Other-Efficacy ---> Informational Other-Efficacy ---> Emotional
2. How does the amount of perceived Social Support associate with RISE?	The amount of perceived Social Support would positively influence RISE	Tangible + Esteem + Informational + Emotional ---> RISE
3. How does RISE associate with Self-Efficacy?	RISE would positively influence Self-Efficacy	RISE ---> Self-Efficacy

Delimitations

This study was limited to active NCAA Division 1 Track & Field athletes.

Potential Limitations and Assumptions:

Data Collection

Survey Completion

Self-reported data

Operational Definitions:

RISE- Relational Inferred Self-Efficacy

NCAA- National Collegiate Athletics Association

CHAPTER II: LITERATURE REVIEW

This literature review examines the association between social support and the tripartite model of efficacy. Additionally, it illustrates how aspects of the tripartite model (i.e., other-

efficacy) can predict the extent of social support, how social support can impact one's relation-inferred self-efficacy, and how relation-inferred self-efficacy can impact one's self-efficacy. This study further advances research concerning athletics by examining the relationship between an individual's belief in someone and how that inherently relates to the amount of social support provided by someone. Specifically, the study aids in understanding factors that may relate to an individual's willingness to provide social support or not, which have yet to be explored. In a culture where social interaction happens constantly within in the fields of play, it is crucial to conduct studies that help further the knowledge on social interactions and athletic performance/mental wellbeing.

Social Support

Social support is the culmination of several types of support/assistance athletes receive and give to others. Albrecht and Adelman (1987) defined social support as both verbal and nonverbal communication between people that reduces one's uncertainty about situations, the self, and the other. There are four major conceptualizations of social support according to Buunk (1990). The first being from a viewpoint of sociology, that the amount and quality of a person's links to others in their social environment—or, in other words, their degree of social integration or the scope and organization of their social network—have traditionally been seen as indicators of social support. The second being the availability or proximity of relationships that fulfill our needs and are defined by love, loyalty, closeness, and confidence. More specifically, Cutrona and Russell (1990) found that aspects of relationships (i.e., levels of reassurance and one's attachment) can decrease levels of stress. The third being from a viewpoint of perceived helpfulness, that previous research has shown that the simple perception that one may turn to

someone for aid decreases stress (Sarason & Sarason, 1986). The last perspective concentrates on the therapeutic function of genuine aid when a person is stressed, whereas the other viewpoints imply a certain preventative role of stress support (Barrera, 1986).

It has been proposed that while functional components of social relationships, such as perceived support, act through a stress-buffering process, structural features of social relationships (i.e., social networks and social integration) may operate through main effects (Kawachi, 2001). The quantity and nature of the interactions and groups that an individual participates in are the subject of structural aspects. For instance, key components in athletes' support networks include coaches, teammates, parents, family, friends, sports trainers, etc. Even with the role these relationships play, it is uncommon to find social support studies that have concentrated only on the effects of the mere existence of these ties or the connections between the volume of providers and outcomes (Freeman, 2020). The presence of these relationships is a necessary, but insufficient, prerequisite for functional support, thus it is crucial to ensure that athletes are a part of a large support network that consists of a variety of interactions and groups (Freeman, 2020).

Due to social support being reported as a significant factor for athletes' success, researchers have made efforts to clarify the functional aspects of it (Rees et al., 2000). The various resources and capabilities communicated within these relationships are the subject of functional aspects of social support. These aspects tend to be divided into various categories or dimensions. There are four distinct dimensions of social support: Emotional, Informational, Tangible, and Esteem social support (Langford et al., 1997). Emotional support is defined as expressions of empathy and concern for another individual. Informational support is defined as providing advice, information and suggestions to a given situation. Tangible support is defined

as physically providing services or help to an individual. Lastly, Esteem support is defined as communication that enhances an individuals' confidence, skills, and sense of belonging. Rees and Hardy (2000) found that the type of social support provided was dependent on the type of problem and stressor. For example, within their qualitative study emotional support was consistently used when dealing with feeling of depression related to sport, while esteem support was utilized to help get others out of a rut. Through their study it was found that these dimensions of social support can be singularly delivered by multiple individuals or multiple by the same person. Overall, each of these distinct types needs to be examined together as they combine to provide us with our perception of social support.

Researchers have focused on both the perception of available support (i.e., *perceived support*) and exchanged social support (i.e., *received support*). Perceived social support is defined as the perceived availability and suitability of support. On the other hand, received social support is defined as both the quality and quantity of support provided (Eagle, 2019). Received social support has been shown to influence an athlete's self-confidence (Hays et al., 2007), performance improvement (Rees et al., 2010), negative psychological states caused by injury (Carson & Poleman, 2012), and both organizational and competitive stressors (Weston et al., 2009; Kristiansen et al., 2010). Received social support has been shown to influence an athlete's sport performance (Rees & Freeman, 2010; Rees & Freeman, 2007) and psychological health outcomes. Received social support from others enables us to have a broader perspective and positive self-image. Received social support has been shown to increase self-confidence, while also decreasing the effect of stress on self-confidence (Rees & Freeman, 2007). Freeman and others created a sport-specific measurement for received social support and found that received social support had a moderate positive relationship with self-efficacy before a competition

(Freeman et al., 2014). Particularly in sports, social support plays a vital role in how athletes develop. It has been recognized as a key factor in maintaining both physical and psychological health (Holt & Hoar, 2006; Malinauskas, 2008). Previous studies have shown that social support reduces burnout, anxiety, depression, and increases overall well-being in collegiate student athletes (Defreese & Smith, 2014). While the combination of received and perceived support has been prominent in social support research, this article focuses on provided and perceived social support specifically from teammates as focal points for the study. We define provided social support as actual offerings of supportive actions and behaviors. For example, bringing someone food or giving them advice would be considered provided social support. Perceived social support would be one's perception of the social support provided and whether they deem it positive or negative. The reason provided and perceived support are the focus of this study is because we want to examine the 'two-way exchange' between the different concepts of support. While received support is also important, this study contributes to Lent and Lopez's (2002) beliefs about support being an outcome of other-efficacy. We want to examine the source of efficacy that makes an athlete want to provide another athlete with support, while also understanding how individuals perceive provided social support.

Although social support can come from a range of people (e.g., coaches, family, trainers), teammate social support is especially important to athlete success. Previous findings have also suggested that collegiate athletes perceive different levels of the four types of social support (i.e., emotional, tangible, informational, and esteem) from teammates (Freeman & Rees, 2010). That is, esteem support was found to be the most available and provided the most often, followed by emotional support. This means, teammates tend to make attempts to build self-confidence first and foremost, following emotional care for one another. Both the quality (i.e., how satisfied an

individual is with their social support) and type of social support provided to an athlete has been linked to recovery from injury, amount of sport participation, burnout, self-confidence, and performance (Sheridan, et al. 2014). Better quality of social support has been linked to fewer depression symptoms and less perceived stress (Benca-Bachman et al., 2020). Teammate social support is positively associated with athlete-peer relationship, athlete motivation levels, elite sport participation, friendship quality, amount of physical activity and dropout rates (Sheridan et al., 2014). Further, athletes who have greater relationships with their teammates experience more motivation related responses within their sport. Teammate support was also shown to play a crucial role in predicting athlete continuation in elite sport (Le Bars et al., 2009). Overall, teammate social support is vital to athlete participation, performance, and growth within the context of sport.

As there are positive social interactions within social support, there are also negative interactions that can affect psychological well-being. Less research has been conducted on the effect of negative social support compared to positive social support (Lincoln, 2000). Social support can be perceived as negative when it is unwanted, different from the recipients needs/wants, or makes them uncomfortable. When this is the case, social support can become a source of stress rather than a reliever of it (Croezen et al., 2010). These negative interactions could include being critical, inconsistent communication, and arguing. Whether negative or positive, social support has an impact on an individual's well-being. By providing both emotional and practical assistance, teammates can foster a sense of belonging and reinforce the importance of collaborative efforts. This links to the current study as we examine how these interactions and the belief, we have in our teammates affect the type of social support we provide to each other.

Overall, peer support from a teammate plays a key role in the well-being of athletes. There are multiple types of social support that can be perceived and provided to individuals (e.g., emotional, tangible, informational, esteem). It has been shown to be beneficial for athletes by helping to reduce anxiety, aid in the process of recovery from injuries, and increase well-being (Defreese & Smith, 2014). Social support can also have both a positive and negative effect on individuals. Lastly, studies have shown that there is a positive moderate correlation between social support and self-efficacy; as a person's social support increases, so does their self-efficacy (Wang et al., 2015). Despite the importance of teammate social support, little research has examined what factors lead an individual to give someone social support or not. One factor that is the focus of this study is efficacy beliefs as discussed in the next section.

Tripartite View of Efficacy Beliefs

In 2002, stemming from the self-efficacy theory (Bandura, 1977), Lent and Lopez (2002) proposed three forms of relational efficacy beliefs (i.e., self-efficacy, other-efficacy, and relation-inferred self-efficacy (RISE)) to examine the effects they have on individual outcomes and interpersonal relationships. They proposed that self-efficacy (one's belief about their own abilities), other-efficacy (someone's belief about their teammates capabilities), and RISE (how an individual believes their teammates view them) dynamically interact within relationships. The tripartite model of efficacy beliefs provides implications for the development, fulfillment, and continuation of relationships. One implication social support and how it relates to individuals' perceptions of dyadic relationships or the confidence an individual can have in one another. This section will provide an in-depth analysis of each aspect of the tripartite model, examining each form of efficacy and their own sources/outcomes. As depicted in Figure 1, Lent & Lopez proposed this model of intra-relationship sources of self-efficacy. Essentially, a teammate's

belief about another teammate (i.e., other-efficacy) relates to provided social cues from an individual. These social cues serve as a source for RISE, as factors such as verbal feedback and demonstrations of support are vital to relationship perceptions. Lastly, perceptions of how others view us have a strong correlation with our own belief in ourselves (self-efficacy). While this figure differs from the current study, it serves as a foundation for the study. In Figure 2, there is a breakdown of the proposed model for this study. While similar to Lent & Lopez's model, it includes social support (i.e., provided and perceived).

Figure 1

Lent & Lopez Hypothesized Model

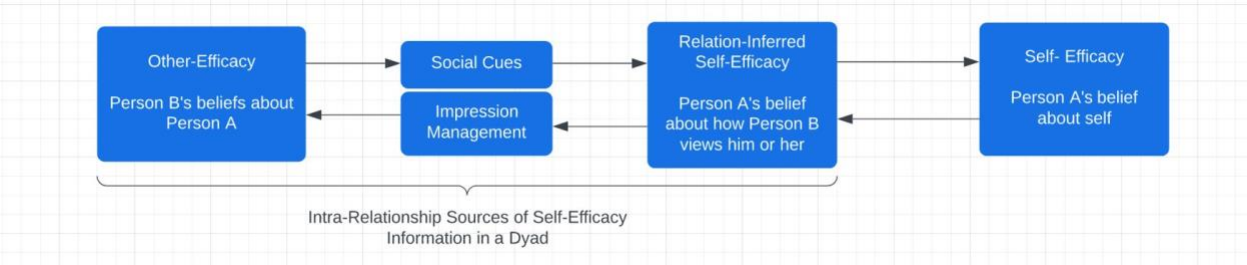

Figure 2

Overview of Study

Self-Efficacy

Self-efficacy, generally, is an individual's belief in themselves and/or their ability to complete various tasks. Bandura defined self-efficacy as 'the conviction that one can successfully execute the behavior required to produce the outcomes' (Bandura, 1977). He also indicated the four main intrapersonal sources of self-efficacy included previous performances, vicarious encounters, verbal influence, and physiological/emotional states. Previous performances have been found to have a strong impact due to their foundation of mastery experiences. Mastery experiences are considered previous experiences of success which enhance one's self-efficacy. Failure can decrease one's self-efficacy, especially when it occurs early on. Once an individual has established their own self-efficacy, the effect of failure is not as prominent. Bandura (1997) found that those with high self-efficacy prefer to push themselves to complete difficult activities, which leads to increasing self-efficacy. Vicarious experiences focus on observing others perform successfully as a source of self-efficacy. By observing others, they can serve as an example and provide insight into a behavior's degree of difficulty. People utilize vicarious experiences to gauge their own skills and base their evaluation of success when they are unsure about their own capacities or abilities. Verbal persuasion refers to the feedback or encouragement individuals receive from others. It tends to be the most used source of self-efficacy due to its simplistic nature. This source helps to supplement the other sources as those who are confident in their abilities are more likely to continue and not give up quickly (Lenz & Shortridge, 2002). The final source of self-efficacy is the self-evaluation of one's physiological/emotional states, which refers to an individual's emotional and physiological responses to various tasks. According to Bandura (1977), an individual's emotional and physiological response to a task can influence their belief in their ability to succeed in said task. People utilize information about their physiological and emotional states to assess their own

abilities. For example, a study conducted by Blascovich and Tomaka (1991) found that individuals who experienced positive emotions reported higher levels of self-efficacy compared to those who experienced negative emotions.

While Lent and Lopez (2002) agreed with Bandura that those four sources of self-efficacy where important, they also argued that the intrapersonal sources of self-efficacy will often be reliant upon relational sources that happen within a relationship. They believed that "it is largely through their interactions with significant others that people come to develop a sense of their [own] capabilities" (p. 257). These relational outcomes include decision-making when it comes to choosing a partner/activity, the amount and type of effort spent in both help giving/seeking, the overall satisfaction of relationships, and how effectively an individual performs on various tasks (Lent & Lopez, 2002). Jackson et al. (2007) found that level of self-efficacy was shown to be highly associated with both an individual and their partner's commitment to a relationship. Self-efficacy is important because it helps to determine multiple outcomes relevant to athletes. Specifically, within sport and exercise, self-efficacy has become a strong predictor of physical activity and sport behaviors (Hu et al., 2007). This is evident as athletes with elevated levels of self-efficacy have been shown to persevere through obstacles, are less likely to give up when facing challenges, and seek lofty goals. On the other hand, those with low levels of self-efficacy have been found to give up when facing obstacles and tend to avoid challenging situations. (Llewellyn et al., 2008). Lower self-efficacy has also been linked to higher levels and greater severity of anxiety, poor decision-making, and mental health. (Richards et al., 2002; Thomasson & Psouni, 2010).

Other-Efficacy

Other-efficacy involves thoughts about another person. Lent and Lopez defined other-efficacy as "an individual's beliefs about his or her significant other's ability to perform particular behaviors" (Lent & Lopez, 2002, p. 264). For example, an athlete's confidence in their coach's ability to coach or a teammate's confidence in an athlete's ability to perform. Sources of other-efficacy have been shown to be perceptions of a person's past achievements, experiences with others, the information presented by third parties about another individual, and social/cultural stereotypes (Lent & Lopez, 2002). Jackson et al. (2009) found that both perceptions regarding the other and dyads (i.e., comparison with past, motivation, compatible coaching style, etc.) are antecedents of other-efficacy. Research has also shown that partner's motivations and psychological states can be sources of other-efficacy (Jackson et al., 2008, 2009). Overall, there are several sources of other-efficacy that result in significant consequences that have an impact on our everyday lives.

Through Lent and Lopez's research, they found that there are multiple outcomes of other-efficacy such as, the process of choosing activities to do with a partner, who a person decides to work with, the type and amount of effort a person will put in when they are partnered up, how much a person uses their partner as a source of feedback, and lastly, ones' beliefs about their partner (Lent & Lopez, 2002, p. 264). Relational factors are one of the major outcomes that has been shown to be influenced by other-efficacy (Habeeb, 2020). In teammate relationships, other-efficacy has been shown to have a moderate positive correlation to relationship commitment, overall commitment ($\beta = .42$, $p < .001$; $\beta = .54$, $p < .001$) and self-efficacy ($\beta = .31$, $p < .01$; Jackson et al., 2007, 2010; Jackson & Beauchamp, 2010). Other-efficacy has also been shown to have a positive impact on athletes' training and performance. Manley et al. (2014) found that athletes that believed their coach was very experienced tended to show greater effort, greater

attention to their coach's instruction, and less time idling during practice compared to those who believed their coach was inexperienced. Through Dithurbide and Flett's (2014) research, it was shown that other-efficacy was related to various behaviors on the basketball court (i.e., passing decisions, motivation, negative attitudes, etc.).

Overall, many personal and social factors have been shown to impact the other-efficacy beliefs of athletes. Previous findings have found that making the effort to get to know a teammate and seeing a teammate display effort/improve their skills helps develop positive other-efficacy beliefs (Dithurbide & Flett, 2014). Athletes have referenced that mastery achievements, experience in years as a pair, having a compatible coaching style, and the amount of contact time with their coach influences their coach's other-efficacy beliefs. These studies help to support Lent and Lopez's theory on the psychological and behavioral impacts of other-efficacy.

Relation Inferred Self-Efficacy (RISE)

Relation Inferred Self-Efficacy (RISE) is an athlete's belief of their teammate's belief in their ability. Lent and Lopez defined it as "an individual's beliefs regarding how a significant other views the individual's efficacy at particular tasks or behavioral domains" (Lent & Lopez, 2002, p. 268). An individual's perception of RISE can develop from interpretations of another's verbal and nonverbal behaviors. This has been shown to impact self-efficacy, which in tandem can influence an individual's decision to participate and their level of enjoyment in sports. More specifically, our perception of our teammates/coaches/peer's belief in our abilities influences our own belief in ourselves. Sources of RISE include self-efficacy and social cues (i.e., direct verbal feedback, nonverbal cues, exhibits of support, etc.). Verbal sources consist of general encouragement, efficacy empowerment comments, and basic instruction. Nonverbal sources

consisted of expressiveness, affective states, and challenging opportunities (Jackson et al., 2008, 2009; McMullen et al., 2020; Saville et al., 2014).

Lent and Lopez suggested that factors such as self-efficacy, relationship satisfaction and coping with stress were outcomes of RISE. Athletes have since added that their relationship functioning (i.e., satisfaction, termination, and persistence) are outcomes of RISE (Jackson et al., 2008, 2009). RISE has a direct effect on an athlete's self-efficacy as the perception of a teammate's RISE behaviors (i.e., tells me s/he believes in me) impacts an individual's own self-efficacy (Saville et al. 2014). Jackson et al. (2009) examined how RISE had no effect on coaches personal functioning but influenced communication with athletes. Saville and Bray (2016) also found that RISE mediated the relationship between social cues and self-efficacy, similar to how it has been central within the bidirectional processes of impression management and social cues (Figure 1).

Study Purpose and Hypotheses

To date, there has been research indicating the positive relationships between the relational efficacies, perceived/received and the outcomes/sources of each. Yet, we do not know how other-efficacy influences the amount of social support an individual provides another. Knowing this would allow for better understanding of the relational outcomes of other-efficacy and social support. Therefore, the purpose of this study was to examine how different types of sport-related efficacy relates to teammate social support. As shown in Table 1 (e.g., Summary of the study): the hypotheses for this study are that (1) other-efficacy would predict the amount of provided social support, (2) amount of perceived social support would predict RISE, (3) and RISE would predict self-efficacy. Figure 1 is an overview of the study as teammate's belief in an individual (other-efficacy) is expected to be associated with provided social support (i.e., giving

advice), perceived social support with relation-inferred self-efficacy, and finally, relation-inferred self-efficacy with self-efficacy (an individual's belief in their own ability).

Table 1

Summary of the Study

Research Questions	Hypotheses	Analyses (Regressions)
1. How does Other-Efficacy associate with provided Social Support?	Other-Efficacy would positively influence the amount of provided Social Support	Other-Efficacy ---> Tangible Other-Efficacy ---> Esteem Other-Efficacy ---> Informational Other-Efficacy ---> Emotional
2. How does the amount of perceived Social Support associate with RISE?	The amount of perceived Social Support would positively influence RISE	Tangible + Esteem + Informational + Emotional ---> RISE
3. How does RISE associate with Self-Efficacy?	RISE would positively influence Self-Efficacy	RISE ---> Self-Efficacy

CHAPTER III: METHODS

Participants

The population of this study included young adult (18 to 24 years of age) Track & Field athletes within the United States. Based on a power analysis, to test for a moderately small effect ($\alpha = .05$, $\beta = .80$, 6 predictor variables) the study needed 177 participants. To achieve this, the aim was to recruit 250 people to account for participants not fully completing each measure, which would help to achieve the 177-participant threshold. The sample was delimited to NCAA (National College Athletic Association (NCAA) Division 1 athletes as each classification has different competition times/marks which led to complex comparisons between the different divisions (i.e., measures would not be comparable).

Design and Study Procedures

After receiving Institutional Review Board (IRB) approval, participants were recruited in various methods. Participants and collegiate coaches were informed via email and personal communication that they/their teams were invited to take part in a research study regarding teammate relationships and confidence. Over 150 coaches from multiple NCAA (National College Athletic Association) Division 1 schools around the country were contacted three times through email with a week interval in between each email. Of those 150 coaches, only 5 coaches allowed their teams to participate in the study. The participants were sent the survey through their phone and/or email after the completion of their preseason (i.e., November). After preseason was the best time to conduct the study because training cycles were finished, projections for the season had begun and the team's overall development and level of interaction (i.e., low and high) patterns were well-established. The study was made available online via

Qualtrics. The participants were first instructed of the general purpose and procedures of the study and then were instructed to indicate implicit consent by clicking "agree" before the survey begins. The survey included questions on provided social support to teammates, perceived social support from teammates, efficacy, and demographic information.

Materials

Social Support: Perceived and Provided

The Perceived Available Support in Sport Questionnaire (PASS-Q; Freeman, Coffee & Rees, 2011) is a 16-item self-report measure that was utilized to assess the amount of perceived social support an athlete perceives from their teammates. The PASS-Q is designed to be used in all sports to measure social support availability. The four dimensions (subscales) of social support are measured through this questionnaire (i.e., emotional, esteem, informational, and tangible support). All items were answered on a four-point Likert type scale: (0-not at all; 4-extremely so). The original stem sentences read as follows, "If needed, to what extent would someone...." Each subscale contained four items and was used separately to measure the different types of social support perceived by teammates. For example, an item from the emotional support subscale reads as follows, "If needed, to what extent would someone care for you." An item from the esteem support subscale reads as follows, "If needed, to what extent would someone reinforce the positives." An item from the informational support subscale reads as follows, "If needed, to what extent would someone give constructive criticism." The tangible support subscale reads as follows, "If needed, to what extent would someone do things for you at competitions/matches." This measure is also scored separately by each subscale. The reliability of the PASS-Q has been found to be at acceptable levels, as the alpha levels range from 0.84 to

0.92 for individual subscales. (Freeman et al., 2011; See Appendix A for *Perceived Available Support in Sport Questionnaire*).

An adapted version of the Perceived Available Support in Sport Questionnaire (PASS-Q; Freeman, Coffee & Rees, 2011) was also utilized to assess the amount of provided social support an athlete gives to their teammates. All items have been modified by changing the word "you" to "members of your training group." For example, one of the original items measuring emotional support read as follows, "If needed, to what extent would someone give you constructive criticism?" The modified PASS-Q emotional support item reads as follows, "If needed, to what extent would you provide members of your training group with constructive criticism?" (Freeman et al., 2011). All items were answered on a four-point Likert type scale: (0-not at all; 4-extremely so). Each subscale was used separately to measure the four types of social support provided by teammates. This measure is also scored separately by each subscale. See Appendix B for *Adapted Perceived Available Support in Sport Questionnaire*).

Efficacy: Self-efficacy, Other-efficacy, and RISE

The Adapted Self-Efficacy Expectation Scale (Gernigon & Delloye, 2003) was utilized to assess the three types of efficacies. Grounded in Bandura's recommendations (Bandura, 1977), the self-efficacy expectations scale distinguishes individuals' level and strength of expectations for completing a certain task. As used in Gernigon and Delloye's research, the task was still track and field performance using place marks. This approach was adapted with a modification to be more generalized and examine levels of competition associated with times (i.e., conference, regionals, and nationals). This scale contains 9 items answered on a 100-point scale: (0-not at all confident; 100-completely confident). The original stem sentence measuring the strength of self-efficacy was as follows, "For this first (or second) 60 m test, please, indicate what time

performance (to the nearest of 0.01 s) you expect to achieve". The modified self-efficacy measure looks at multiple levels of competition. This was modified due to the varying levels of competition that track & field athletes have the possibility of reaching. The first being conference level, this read as follows, "how confident are YOU in YOUR ability to achieve a Top-8 Conference Mark?". The second being regional level, this read as follows, "how confident are YOU in YOUR ability to achieve a Top-8 Regional Mark?". The third being national level, this read as follows, "how confident are YOU in YOUR ability to achieve a Top-8 National Mark?" this stem format is in line with Habeeb et al. (2017; 2019).

For the other-efficacy item, the stem sentence states, "How confident are YOU in YOUR TRAINING GROUP'S ability to achieve". This modified stem sentence helps to examine teammate/training group beliefs. The first being conference level, this read as follows, "how confident are YOU in YOUR TRAINING GROUP'S ability to achieve a Top-8 Conference Mark?". The second being regional level, this read as follows, "how confident are YOU in YOUR TRAINING GROUP'S ability to achieve a Top-8 Regional Mark?". The third being national level, this read as follows, "how confident are YOU in YOUR TRAINING GROUP'S ability to achieve a Top-8 National Mark?".

Finally, the RISE stem sentence states, "How confident do you think YOUR TRAINING GROUP is in YOUR ability to achieve." These stem sentences are in line with Jackson et al. (2007) and McLean et al. (2020). Finally, the RISE stem sentence states, "How confident do you think YOUR TRAINING GROUP is in YOUR ability to achieve." This modified stem sentence focuses on the individual's perception of their training group's beliefs. The first being conference level, this read as follows, "how confident do you think YOUR TRAINING GROUP is in YOUR ability to achieve a Top-8 Conference Mark?". The second being regional level, this read

as follows, “how confident do you think YOUR TRAINING GROUP is in YOUR ability to achieve a Top-8 Regional Mark?”. The third being national level, this read as follows, “how confident do you think YOUR TRAINING GROUP is in YOUR ability to achieve a Top-8 National Mark?”. Overall, this measure was scored within each subscale (i.e., self-efficacy, other-efficacy, and RISE) but not specifically with the three different levels of competition (See Appendix C for A*dapted Self Efficacy Expectations Scale*).

Demographic Questions

A background questionnaire was administered to collect basic demographic information including age, race, ethnicity, gender, current school, year in school, athletic conference distinction, training group, injury status, time with team, main event, international athlete status, scholarship distinction, conference/regional difficulty, transfer athlete status, training group distinction, NIL (Name, Image, and Likeness) deals, and highest level of competition achieved. (See Appendix D for Demographic Information)

Data Analysis

Descriptive statistics were used to determine the means, standard deviations and ranges of the sample’s demographics and main variables (social support and efficacy beliefs). Correlations were calculated to examine the bi-variate relationships between perceived social support, provided social support, self-efficacy, other-efficacy, and RISE. The assumptions of regressions were checked before conducting each regression. Alphas were also run on each measure for evidence of reliability. To test Hypothesis 1, four simple linear regressions were used to examine the relationships between other-efficacy and the different types of provided social support (i.e., emotional, esteem, informational, and tangible). To test Hypothesis 2, a

multi-linear regression was used to examine the relationship between the four types of perceived social support and RISE. Lastly, to test Hypothesis 3, a simple linear regression was used to examine the relationship between RISE and self-efficacy. To interpret the strength of the Betas (β), R2 values can be interpreted for effect size information. To interpret the strength of the correlations (*r)*, $r = 0.10$, $r = 0.30$, and $r = 0.50$ were recommended to be considered small, medium, and large in magnitude by Cohen's guidelines (1998). All statistics were conducted in SPSS version 28 for Windows.

CHAPTER IV: RESULTS

Sample Characteristics

In total, 220 participants started the online survey. A 43% completion rate was used as a cutoff threshold. Essentially if the participants at least completed the measures of perceived social support, provided social support, and self-efficacy then their data was kept. Only 119 participants completed enough items within the threshold. This meant that 101 participants were excluded from the analyses. Among those who were excluded, all 101 participants completed between 1 and 42 percent of the total survey.

The sample included male (n = 44, 36.4%) and female (n = 67, 55.4%*)* participants with an age range of 17-23 (M_{Age} = 20.28 years, SD_{Age} = 1.51; 39 individuals did not report their age and 8 individuals did not report their gender). The sample was 61.2% White, 24% African American, 3.3% Other, and 0.8% Native Hawaiian/Pacific Islander. Within the sample, thirteen preferred not to provide demographics or were missing. Participants c spanned fourteen different Division 1 universities. Participants also indicated the athletic conference in which they compete, these conferences included Atlantic 10 (n = 3), American Athletic (n = 45), Atlantic Sun (n = 6), Big Ten (n = 15), Big East (n = 1), Colonial Athletic (n = 12), Horizon League (n = 4), Mid Atlantic (n = 8), Mid-Eastern Athletic (n = 1), Sun Belt (n = 10), and eleven participants did not answer. Across the various universities, participants competed in multiple events from 100m and 10km to high jump and shot put. Participants identified being a 1st year (25%), 2nd year (15%), 3rd year (13.3%), 4th year (20%), 5th/6th year (7.5%), graduate student (10.8%) and ten participants did not answer. The training group classification was as follows: Sprints/Hurdles (n = 28, 23.3%), Mid-distance (n = 12, 10%), Distance (n = 36, 30%), Jumps (n = 12, 10%), Throws (n = 18, 15%), Multis (n = 5, 4.2%), and 9 participants did not answer. The participants

were asked to list their perceived difficulty of their conference and regional competition on a scale from 1-10 (with 10 being the highest difficulty). The average conference difficulty was 7.31 (*SD* = 2.29). The average regional difficulty was 9.06 (*SD* = 1.34). Participants were asked to indicate whether they were an international athlete (*n* = 8, 6.7%) or not (*n* = 103, 85.8%) while nine did not respond. When asked if they were on scholarship, participants indicated yes (*n* = 72, 60%), or no (*n* = 39, 32.5%) and nine did not respond. The participants were also asked if they were a transfer athlete where some indicated yes (*n* = 28, 23.3%), and a majority indicated no (*n* = 83, 69.2%). while nine did not respond. When asked if they were currently injured indicated yes (*n* = 11, 9.2%), indicated no (*n* = 100, 83.3%) and nine did not respond. When asked if they were on an NIL deal indicated yes (*n* = 6, 5%), indicated no (*n* = 105, 87.5%), and nine did not respond. Finally, participants identified their highest level of competition achieved as Conference (*n* = 49, 58%), Regional (*n* = 22, 26%), and National (*n* = 13, 15%) while thirty-six participants did not respond.

Preliminary Analysis

A missing data analysis was conducted. The results indicate that 4.2% of the data was missing. Of the 119 participants, no individual participants were missing more than 4% of the data. The 4% of data missing represents the number of participants who did not have 100% survey completion. For the data that was missing 2 sample imputations were conducted for other-efficacy and RISE. No violations of the homoscedasticity and normality of residuals assumptions were observed. There were also no violations of the independent errors or linearity assumptions. A Bonferroni adjusted p-value was used for hypothesis 1 ($p < .0125$). This was calculated by dividing the typical p-value of .05 by 4 due to there being four regression tests. The remaining hypotheses were tested using $p < .05$ because only one regression was calculated per

test. Multicollinearity was tested for hypothesis 2 due to the presence and combination of four predictor variables. The Variance Inflation Factor (VIF) and Tolerance (TOL) values are two methods for detecting multicollinearity in a dataset. In general, a VIF more than 4 or tolerance less than 0.25 suggests the possibility of multicollinearity and requires additional examination. When VIF exceeds 10 or tolerance falls below 0.25, there is considerable multicollinearity that must be corrected. According to our findings, none of the VIF values were higher than 4, with the highest being 2.06 in perceived emotional support. Furthermore, none of our TOL values were below 0.25.

Descriptive Results

Before conducting the main analyses, the means scores were examined. Both the means and standard deviations for all types of social support and efficacy variables are shown in Table 2. Skewness, kurtosis, and internal consistency are also displayed within the table. First a foremost, skewness is a measurement of distribution but more specifically if the data set lacks symmetry. Any symmetric data should have a skewness that is close to zero, since the skewness for a normal distribution is zero. Data that are skewed left are indicated by negative values for the skewness, while positive values for skewness indicate the opposite. The sample reported data found in Table 2 ranging from (-1.25 to -.65), this means that the data was skewed left and did not have a normal distribution. Kurtosis is a measurement of the tailedness (how often outliers occur) of a distribution. The standard normal distribution score for kurtosis is three. A positive kurtosis represents a "heavy-tailed" distribution while a negative kurtosis represents a "light tailed" distribution. The kurtosis data found in Table 1 ranged from (-.26 to 1.65), this provided us with more evidence of an abnormal distribution. However, the level of skewness and kurtosis were deemed not problematic. Internal consistency is defined as the degree of homogeneity or

correlation between test items/measures. Cronbach's alpha allows us to examine whether a measure is reliable or not. Commonly, methodologists recommend an α coefficient to be between 0.65 and 0.8 (or higher; Taber, 2018). Table 2 alphas ranged from (.76 to .91), meaning each measure used in the study displayed reliability. The sample reported relatively high levels of both provided and perceived social support as averages were out of a 3.25 to 3.75 range. The sample reported higher levels of provided social support than perceived social support across all types. The sample also reported high levels of self-efficacy, other-efficacy, and RISE as averages were out of a 77.54 to 81.10 range. This means that overall, participants felt as though they both provided and perceived social support in great quantities.

Table 2

Descriptives, skewness, kurtosis, and internal consistency.

Variable	Mean (SD)	Skewness	Kurtosis	α
Perceived Emotional Support	3.54 (.47)	-.91	.91	.86
Perceived Esteem Support	3.46 (.52)	-.74	-.08	.84
Perceived Informational Support	3.25 (.64)	-.67	-.26	.85
Perceived Tangible Support	3.25 (.61)	-.92	1.32	.85
Provided Emotional Support	3.75 (.34)	-1.25	.33	.76
Provided Esteem Support	3.70 (.41)	-1.06	-.20	.79
Provided Informational Support	3.34 (.65)	-.93	.28	.87
Provided Tangible Support	3.48 (.60)	-1.08	.35	.87
Self-Efficacy	78.56 (10.82)	-.94	1.65	.84
Other-Efficacy	77.54 (12.59)	-.65	.34	.91
RISE	81.10 (12.64)	-1.05	1.24	.90

Correlations

Pearson correlations for all variables are displayed in Table 3. From top to bottom and left to right the variables of perceived social support, provided social support, self–efficacy, other-efficacy, and RISE are shown. Within perceived social support we see positive moderate to strong associations between each variable, with a range of (r =.32-.60). Within provided social support we see positive non-significant to moderate associations between each variable, with a range of (r =.18-.60). Examining the correlations that connect provided and perceived social support, we see a couple of trends forming. First, the specific provided aspects of social support correlated highest with their corresponding perceived aspect of social support. For example, provided tangible social support had a strong positive association with perceived tangible social support (r = .60, p <.001). Second, perceived emotional social support was only associated with two provided aspects of social support (i.e., provided emotional (r = .36, p <.001) and tangible support (r = .32, p <.001)). Third, perceived informational social support was significantly associated with the most forms of provided social support. Within the efficacies (self, other, RISE) we see positive moderate to strong associations between each variable, with a range of (r =.40 - .66).

As shown below, RISE had a strong positive correlation with self-efficacy (r = .66, p <.01), more specifically it was the strongest correlation among all results. A strong positive correlation exists between other-efficacy and RISE (r = .59, p <.01), this means that while we do not specifically know if social support is the cause, we at least gain indication of a relationship between the two variables. Examining perceived social support's correlation with each form of efficacy we see a couple of trends. The first being, across all forms of efficacy we see non-significant to small associations with perceived social support (r =.06 - .29). Secondly, we see

two key associations: one between perceived esteem support and self-efficacy *(r* = .28, *p* <.01), and one between perceived informational support and other-efficacy *(r* = .29, *p* <.01).

Examining provided social support's correlation with each form of efficacy indicates a couple more trends are apparent. First, we see that across all aspects of efficacy there are non-significant to moderate positive associations with provided social support (*r* =.17 - .33). Second, there are multiple positive moderate key associations: the first being between provided emotional support and RISE *(r* = .33, *p* <.01), the second being provided tangible support and both other-efficacy *(r* = .31, *p* <.01) and RISE *(r* = .34, *p* <.01). The more emotional support provided, the greater people believe their counterparts perceive them. Next, the more confident someone is in another individual, the more they give rides to their teammates or provide them with food. Lastly, the more confident someone is in another individual, the more confident people are in how their peers view them.

Table 3

Correlations

Variable	1	2	3	4	5	6	7	8	9	10
1. Perceived Emotional Support	--									
2. Perceived Esteem Support	.61**									
3. Perceived Informational Support	.33**	.38**								
4. Perceived Tangible Support	.61**	.42**	.41**							
5. Provided Emotional Support	.36**	.32**	.19*	.29**						
6. Provided Esteem Support	.18	.42**	.40**	.22*	.53**					
7. Provided Informational Support	.07	.24**	.29**	.21*	.33**	.40**				
8. Provided Tangible Support	.33**	.35**	.26**	.60**	.46**	.43**	.41**			
9. Self-Efficacy	.20*	.28**	.16	.18*	.17	.20*	.29**	.27**		
10. Other-Efficacy	.15	.13	.29**	.22*	.26**	.24**	.13	.31**	.40**	
11. RISE	.20*	.16	.06	.23*	.34**	.21*	.191*	.34**	.66**	.60**

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

Main Analysis

Hypothesis 1

Four regressions were conducted. First, a simple linear regression was used to test if other-efficacy significantly predicted provided tangible support. The overall regression was statistically significant, F(1, 116) =12.690, p <.001. It was found that other-efficacy had a positive moderate relation to provided tangible support, β = .31, p = <.001. In this model, almost ten percent of the variance in provided tangible support was explained by other-efficacy, R^2 = .099.

Second, a simple linear regression was used to test if other-efficacy significantly predicted provided esteem support. The overall regression was statistically significant, F(1, 116) =7.274, p =.008. It was found that other-efficacy had a positive small relation to provided esteem support, β = .24, p = .008. In this model, six percent of the variance in provided esteem support was explained by other-efficacy, R^2 = .059.

Third, a simple linear regression was used to test if other-efficacy significantly predicted provided informational support. The overall regression was not statistically significant, F(1, 116) =1.976, p =.162. It was found that other-efficacy did not significantly predict provided informational support, β = .12, p = .162. In this model, two percent of the variance in provided informational support was explained by other-efficacy, R^2 = .017.

Fourth, a simple linear regression was used to test if other-efficacy significantly predicted provided emotional support. The overall regression was statistically significant, F(1, 116) =8.480, p =.004. It was found that other-efficacy had a positive small relation to provided

emotional support, β = .26, p = .004. In this model, seven percent of the variance in provided emotional support was explained by other-efficacy, R^2 = .068.

Overall, the results indicate that there is a small to moderate positive association between a teammate's belief in someone (other-efficacy) and the amount of tangible, esteem, and emotional support they provide to their teammates. In contrast, other-efficacy did not predict informational support, meaning that an individual's confidence in one's ability does not predict the amount of advice or suggestions they provide.

Hypothesis 2

Multiple linear regression was used to test if the four types of received social support significantly predicted RISE. The overall regression was not statistically significant, F(4, 113) =1.882, *p=.118*. It was found that the four types of social support did not uniquely significantly predict RISE, β = -.06 - .180, p = .138 - .596. In this model, six percent of the variance in relation-inferred self-efficacy was explained by the four types of social support, R^2 = .062. The results indicated that the four types of perceived social support collectively did not predict RISE.

Hypothesis 3

Simple linear regression was used to test if relation-inferred self-efficacy significantly predicted self-efficacy. The overall regression was statistically significant, F(1, 116) =91.555, p <.001. It was found that RISE significantly predicted self-efficacy, β = .66, p = <.001. In this model, ten percent of the variance in self-efficacy was explained by RISE, R^2 = .099. The results supported previous research and indicated that relation-inferred self-efficacy (one's perceptions about another individuals' beliefs) predicted self-efficacy (Lent & Lopez, 2002).

CHAPTER V: DISCUSSION

The purpose of this study was to gain a better understanding of relational effects among teammates. Essentially, the researchers sought to examine how other- efficacy relates to social support provided by teammates, how that received social support relates to relation inferred self-efficacy, and how relation inferred self-efficacy relates to the self-efficacy of the athlete. Theoretically, those who have higher confidence in their peers would provide more social support to them. Relatedly, those who have more social support would have higher RISE and self-efficacy as well (Wang et al., 2015). It was hypothesized that other-efficacy would positively influence the amount of provided social support, that the amount of perceived social support would positively influence RISE, and that RISE would positively influence self-efficacy. The first hypothesis examined other-efficacy's ability to predict each form of social support. Multiple linear regressions were used to assess the relationship between the constructs. The results indicated that other-efficacy significantly predicted provided tangible, esteem and emotional support. However, other-efficacy did not significantly predict provided informational support. Regarding hypothesis, the results revealed that perceived social support did not significantly predict RISE which indicated that the hypothesis was not supported. For our third hypothesis, the results indicated that self-efficacy did significantly predict self-efficacy which supported the hypothesis. Overall, the following includes a discussion of the results in comparison to theory, future research, applications, and overall takeaways.

Key Findings and Theoretical Implications

Some notable results that have important theoretical implications. The first hypothesis, focusing on the relationship between other-efficacy and each type of social support (i.e., emotional, tangible, esteem), indicated that other-efficacy was a positive predictor of every type

of other-efficacy except informational support. Essentially, being confident in a teammate was associated with teammates giving more emotional support (i.e., listening to them talk about their difficulties, etc.), tangible support (i.e., rides, food, etc.), and esteem support (i.e., building their self-confidence) but not provide advice (i.e., informational support). This relationship was the central focus for the study. This is significant because previous research found that both the quality (i.e., how satisfied an individual is with their social support) and type of social support provided to an athlete has been linked to recovery from injury, amount of sport participation, burnout, self-confidence, and performance (Sheridan, et al. 2014). The analysis revealed a positive small to moderate correlation between other-efficacy and emotional, tangible, and esteem support. This finding is novel, so these findings supplement current and direct future literature. The findings from the study also indicated that other efficacy overall positively correlates with provided social support. In terms of provided social support, our findings revealed that emotional support was the most commonly provided type of social support. This was determined as it had a mean of 3.75 out of 5 and was reported higher than any other type of provided social support. These findings are consistent with previous research, as Freeman and Rees (2010) revealed that emotional support is the second most available and provided type of support, with only esteem support being higher.

Secondly, the findings revealed that participants rated the amount of social support they provided higher than the amount of social support they perceived across all kinds of social support. This might mean one of two things: people perceive less social support than is really offered to them, or people overestimate the amount of social support they provide their peers. Thirdly, there was no relationship between perceived social support and relationship-inferred self-efficacy. This is noteworthy since there are small to moderate positive relationships between

RISE and perceived emotional and tangible social support. The belief is that the several types of social support combined (emotional, informational, esteem, and material support) do not predict RISE, but when examined independently relationships exist. This means that the amount of emotional support (physical affection, listening to them talk about their problems, etc.) and tangible support (ride, food, etc.) Perceived influences the view of what our teammates think of us. Finally, past research (Jackson et al., 2008, 2009) also reported that RISE positively predicted self-efficacy. Again, this result helps to solidify the foundation of relational efficacy research, especially in terms of RISE and self-efficacy.

Applications

Previous research (Sheridan et al., 2014) indicated that teammate social support is positively associated with athlete-peer relationship, athlete motivation levels, elite sport participation, friendship quality, amount of physical activity and dropout rates. While they are all beneficial results, they are not always directly tied to performance. Self-efficacy has been repeatedly demonstrated to be a favorable predictor of athletic performance. According to our findings, athletes who are injured, exhibit a lack of skill, or have not made adequate connections with teammates tend to receive less social support. Previous studies have found that people who receive less social support have greater depression symptoms, burn out sooner, and so forth (Defreese & Smith, 2014). The hope is that this research can be used to help athletes understand the importance of their relational interactions on their team.

Injured athletes, for example, tend to be isolated from their team since they are unable to practice and rehab facilities are located distant from training facilities. Athletes who are injured are more likely to have higher felt loneliness, depending on the severity of the injury and the length of the healing process (Rosen, 2017). This study adds a scientific perspective to a well-

known sporting experience by emphasizing the necessity of believing in your teammates as individuals and their abilities. This should improve teammate interactions and, as a result, athlete well-being. Overall, players, coaches, and training staff should be mindful of the implications of these interactions and work hard to build a positive culture among their teams.

Strengths, Limitations, and Delimitations

Within this study there were several limitations, and these mainly focused on data collection and survey completion. The aim was to collect data during preseason training after teams had ample amount of time to build relationships and connections with teammates. Over 150 coaches were contacted through email three times, and only five coaches responded. Of the five coaches, none of them had their whole teams participate. Coaches who did not allow their athletes to participate claimed that research was a detriment to team culture, but this hurt the study. The power analysis ran stated that to have a moderate effect size, 177 participants were required. Due to the lack of participation and difficulties in recruitment this was not threshold was not reached. Furthermore, many individuals who did participate in the study did not complete the survey fully. The study began with 220 participants but dwindled down to 119 as many did not even attempt to start the survey or did not complete the first measure. Due to this, a cut off threshold was created to make sure to only include participants who at least completed all the measures within the study.

Although this study had its fair share of limitations, there were also some key strengths. The first being that this study is the first to look at other-efficacy's correlation with social support. We noticed the value of social support and its multiple impacts throughout this study. This study has given us a better grasp of how our perspectives and beliefs about others affect how we treat them and how they perceive that treatment. This study serves as a framework for

additional investigation into the intricacies of relational efficacy beliefs. Second, although the statistical power was reduced due to not reaching the appropriate number of participants, there was a lot of significant statistical results. Third, the study's sample was exceptionally diversified, allowing for great generalizability in the athletic community. Participants in the study came from all around the country, and it included people from various cultural backgrounds as well as events within track itself. The demographics were representative of track teams across the country due to the spread and percentages of ages, grades and events. While only one sport was employed, we were able to see how people's confidence in their teammates affects them both in and out of athletics. Finally, this study focused on two distinct forms of social support. The majority of the literature examines received and perceived social support in athletics and daily life (Rees & Freeman, 2007). No research has thoroughly investigated the causes and outcomes of provided social support. This study was unusual in that it investigated both provided and perceived support, allowing us to better understand relation-inferred self-efficacy and, more crucially, how individuals perceive the amount of support that is supplied to them.

This study also had a couple of delimitations. The first being, the sample only included NCAA Track & Field athletes, more specifically Division 1 athletes. This was due to the researchers having extensive knowledge with this population previously, and track being both a team and individual-oriented sport. Only Division 1 athletes were used due to the complexities of comparing competition levels among all classifications. In track and field qualifications for championships, championships vary for division, conference, region, and national events. As a result, assessing and comparing the relational efficacies of individuals from each division would have been extremely challenging. Finally, collegiate athletes were selected because most professional track and field athletes practice alone or with a partner. Social support is not as

prevalent in professional track as it is in team sports such as football and baseball. This is because there are no designated track and field teams or leagues.

Future Research

This study provides multiple directions for future research. The first future research should examine using coaches instead of teammates. Research has shown that social support from coaches can increase an individual's self-efficacy (Rees & Freeman, 2007). This would allow us to delve deeper into the impacts of coaching behaviors while also examining the athlete's perception of this social support. Second, future studies should look into various sports such as tennis/golf or football. It would be fascinating to compare this field of study in the context of fully team-oriented sports versus others that are nearly entirely individual. This would allow us to investigate social support in a nearby region while simultaneously seeing how it relates to other sports. Third, future studies should look at how injuries alter the amount of social support teammates receive. Former research has found that athletes who are injured tend to have higher levels of depression (Appaneal et. al, 2009). Participants in the research filled out different demographic information, such as whether or not they were injuries and for how long. While we did not analyze this data, it would be quite interesting to do so because injuries are a key element in sports and can have a substantial impact on an athlete's mental health. Extending the study to different contexts will contribute to the literature and improve knowledge of the influence of other-efficacy on social support.

Conclusions

To the author’s knowledge, this is the only study to examine how other-efficacy is associated with provided social support from teammates. The major goal of this study was to

emphasize the need of social support for athletes while also investigating why they are not always given it by their teammates. In conclusion, the current study found that individuals who are confident in their teammate's abilities tend to provide them with social support. Additionally, the social support provided would be central to tangible experiences, emotional comfort, and gestures that build ones' self-confidence. This data may be utilized to advise athletes, coaches, and training staff about the impact of their relationships and how better to support collegiate athletes throughout the United States.

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Appendix A

PERCIEVED AVAILABLE SUPPORT IN SPORT QUESTIONNAIRE

(Freeman, Coffee & Rees, 2011)

"If needed, to what extent would someone..." (Emotional Support)	**Not At All (1)**	**Very Little (2)**	**To some extent (3)**	**Extremely So 4)**
provide **you** with comfort and security				
always be there for you				
care for you				
show concern for you				
"If needed, to what extent would someone..." (Esteem Support)	**Not At All (1)**	**Very Little (2)**	**To some extent (3)**	**Extremely So (4)**
reinforce the positives				
enhance your self-esteem				
instill you with the confidence to deal with pressure				
boost your sense of competence				

"If needed, to what extent would someone..." (Informational Support)	**Not At All (1)**	**Very Little (2)**	**To some extent (3)**	**Extremely So (4)**
give you constructive criticism				
give you tactical advice				
give you advice about performing in competitive situations				
give you advice when you're performing poorly				
"If needed, to what extent would someone..." (Tangible Support)	**Not At All (1)**	**Very Little (2)**	**To some extent (3)**	**Extremely So (4)**
help with travel to training and matches				
help with tasks to leave you free to concentrate				
do things for you at competitions/matches				
help you organize and plan their competitions/matches				

Appendix B

ADAPTED PERCIEVED AVAILABLE SUPPORT IN SPORT QUESTIONNAIRE

(Freeman, Coffee & Rees, 2011)

"If needed, to what extent would you..." (Emotional Support)	**Not At All (1)**	**Very Little (2)**	**To some extent (3)**	**Extremely So (4)**
provide **members of your training group** with comfort and security				
always be there for members of your training group				
care for members of your training group				
show concern for members of training group				
"If needed, to what extent would you..." (Esteem Support)	**Not At All (1)**	**Very Little (2)**	**To some extent (3)**	**Extremely So (4)**
reinforce the positives				
enhance members of your training group's self-esteem				
instill members of your training group with the confidence to deal with pressure				
boost members of your training group's sense of competence				

"If needed, to what extent would you..." (Informational Support)	**Not At All (1)**	**Very Little (2)**	**To some extent (3)**	**Extremely So (4)**
give members of your training group constructive criticism				
give members of your training group tactical advice				
give members of your training group advice about performing in competitive situations				
give members of your training group advice when you're performing poorly				
"If needed, to what extent would you..." (Tangible Support)	**Not At All (1)**	**Very Little (2)**	**To some extent (3)**	**Extremely So (4)**
help with travel to training and matches				
help with tasks to leave members of your training group free to concentrate				
do things for members of your training group at competitions/matches				
help members of your training group organize and plan their competitions/matches				

Appendix C

ADAPTED SELF EFFICACY EXPECTATIONS SCALE (Gernigon & Delloye, 2003)

Self: "How confident are YOU in YOUR ability to achieve..."

1. Top-8 Conference Mark:
    a. 0 (Not at all confident) - 10 (Completely confident)

2. Top-8 Regional Mark:

    a. 0 (Not at all confident) - 10 (Completely confident)

3. Top-8 National Mark:
    a. 0 (Not at all confident) - 10 (Completely confident)

Other: “How confident are YOU in YOUR TRAINING GROUP’S ability to achieve..."

1. Top-8 Conference Mark:

    0 (Not at all confident) - 10 (Completely confident)

2. Top-8 Regional Mark:

    0 (Not at all confident) - 10 (Completely confident)

3. Top-8 National Qualifier Mark:

    0 (Not at all confident) - 10 (Completely confident)

Rise: "How confident do you think YOUR TRAINING GROUP is in YOUR ability to achieve..."

1. Top-8 Conference Mark:

0 (Not at all confident) - 10 (Completely confident)

2. Top-8 Regional Mark:

   0 (Not at all confident) - 10 (Completely confident)

3. Top-8 National Qualifier Mark:

   0 (Not at all confident) - 10 (Completely confident)

Appendix D

DEMOGRAPHIC INFORMATION

What is your age?

- 18-21
- 22-25
- 25+

With which gender do you identify?

- Woman
- Man
- Agender
- Transgender
- Non-binary
- An identity not listed, self-identify_____
- Prefer not to say

What is your race?

- American Indian/Alaska Native
- Asian
- Black/African American
- Native Hawaiian/Other Pacific Islander
- White
- Other (please specify)
- Prefer not to say

What is your ethnicity?

- Hispanic/Latinx
- Not Hispanic/Latinx
- Prefer not to say

What school are you currently attending?

- _____

What is your current year in school?

- 1st Year
- 2nd Year
- 3rd Year
- 4th Year
- 5th Year/6th Year
- Graduate Student

What athletic conference do you compete in?

- _____

How difficult is it to place in the top 8 within your event for your conference?

- Rate 1 to 10

How difficult is it to place in the top 8 within your event for your region?

- Rate 1 to 10

How long have you been with your team?

- 1-6 months
- 6-12 months
- 2-3 years
- 3-4 years
- 4+ years

What training group are you a part of?

- Sprints/Hurdles
- Mid-Distance
- Distance
- Jumps
- Throws
- Multis

What is your main event that you compete in?

- _____

Are you an international athlete?

- Yes
- No

Are you on scholarship?

- Yes
- No

Are you a transfer athlete?

- Yes
- No
    - If yes, from what school, and how long have you been with your new team?

Are you currently injured?

- Yes
- No
    - If yes how long?

Are you currently on an NIL deal?

- Yes
- No `

What is the highest level of competition (conference, regional, national) that you have achieved?

- Conference
- Regional
- National
- N/A

Appendix E

IRB Approval Letter

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** ·
rede.ecu.edu/umcirb/

Notification of Exempt Certification

From: Social/Behavioral IRB
To: Ronald Russell
CC: Christine Habeeb
Date: 11/8/2022
Re: UMCIRB 22-002024
Relational Efficacy and Social Support in 'Athletics'

I am pleased to inform you that your research submission has been certified as exempt on 11/7/2022. This study is eligible for Exempt Certification under category # 2ab.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

Document	Description
Demographics Questionnaire(0.01)	Surveys and Questionnaires
Demographics Questionnaire.docx(0.01)	Data Collection Sheet
Efficacies Questionnaire(0.01)	Surveys and Questionnaires
Recruitment Script.docx(0.01)	Recruitment Documents/Scripts
Social Support Questionnaire(0.01)	Surveys and Questionnaires
Survey Consent Paragraph for Exempt Research 2 20 20 (1).doc(0.01)	Consent Forms
Thesis(0.01)	Study Protocol or Grant Application

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.
