

EXPLORING THE RELATIONSHIP BETWEEN COACHING BEHAVIOR AND
DEVELOPMENTAL OUTCOMES AMONG ADOLESCENT FEMALE ATHLETES IN
COMPETITIVE SPORT

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A dissertation submitted to the faculty of the University of North Carolina at Chapel Hill in
partial fulfillment of the requirements for the degree of Doctor of Philosophy in the School of
Education (School Psychology)

Chapel Hill
2015

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ABSTRACT

Jessica Grace Keroack: Exploring the Relationship Between Coaching Behavior and Developmental Outcomes Among Adolescent Female Athletes in Competitive Sport
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It is well documented that sport is a positive youth development context that has the potential to foster the development of life skills that surpass the bounds of athletics. Sport participation has been linked to beneficial physical health outcomes as well as psychosocial growth in areas such as initiative, self-esteem, teamwork, and interpersonal skills (Hansen et al., 2003; Larson et al., 2006). Although sport participation can benefit athletes through socialization with peers, experiences with challenge, and supportive relationships with adult mentors, participation can also be associated with negative outcomes such as increased stress, engagement in risky behavior, and decreased perceptions of self-competence (Eccles & Barber, 1999; Fedricks & Eccles, 2006). Coaching behaviors are one factor that play a key role in constructing a positive sport experience and facilitating the development of life skills.

The purpose of this study was to investigate the relationship between perceived coaching behavior and developmental experiences, and to investigate the strategies used by coaches to facilitate the development and transfer of life skills. Using a mixed method sequential explanatory design, questionnaires were administered to 126 female adolescent athletes and in-depth interviews were conducted with six selected exemplar coaches (four males, two females) from a competitive youth sport program. Multivariate procedures indicated that the types of behaviors perceived to be used by coaches influenced the developmental experiences (i.e., life skill development) of players. Specifically, players who thought coaches demonstrated more

positive coaching behaviors (and less negative rapport) were more likely to perceive positive developmental experiences. Furthermore, coaches identified strategies they utilized to foster the development of life skills among their players including establishing a coaching philosophy predicated on personal development, teaching life skills by integrating direct (i.e., explicit instruction, active learning) and indirect (i.e., modeling) teaching approaches during practice, and most critically, building a meaningful coach-athlete relationship. In sum, these findings highlight the notion that sports can provide an educational context for acquiring life skills and that the behaviors and relationships formed with coaches are crucial components of how female adolescents learn life skills through their involvement in competitive sport.

To my mother, whose strength, courage, and spirit inspire me every day.

ACKNOWLEDGEMENTS

First and foremost, I want to thank my family, Roger, Karen, and Nicole Keroack. Thank you for your unwavering support and unconditional love. Thank you for helping me to follow my dreams. I couldn't have done this without you. To my incredible boyfriend, Michael Bertucci, thank you for believing in me, encouraging me, and loving me at my best and my worst. I would like to acknowledge the directors, coaches, and players at Volleyball Club for their passion, dedication, and commitment to "educating the whole person through excellence in the sport of volleyball." I am indebted to all of you for inspiring this research. Thank you for allowing me to be a part of your incredible family for the past five years. Thank you to my friend and statistician, Matthew Avery, for helping me with the impossible. To my entire committee, Dr. Dana Griffin, Dr. Jill Hamm, Dr. Sandra Evarrs, and Dr. Rune Simeonsson, I am truly grateful for your guidance, feedback, and support throughout this process. Finally, I would like to thank my dissertation chair, advisor, and mentor, Dr. Steve Knotek, for helping me blaze my own trail these past five years.

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LIST OF ABBREVIATIONS

CBS-S	Coaching Behavior Scale for Sport
CET	Coach Effectiveness Training
GOAL	Going for the Goal
GOT	Girls on Track
ICC	Intraclass Correlation
NRCIM	National Research Council and Institute of Medicine
PCA	Principal Components Analysis
PYD	Positive Youth Development
SDT	Self-Determination Theory
SUPER	Sports United to Promote Education and Recreation
YES-2	Youth Experiences Survey 2.0

CHAPTER I: Introduction

Participation in organized activities has been associated with many indicators of positive developmental outcomes for children and adolescents. Sport participation in particular has been linked to identity development, emotional exploration, improved cognitive and physical skills, and cultivating teamwork, leadership, and social skills (Barber, Stone, & Eccles, 2000; Brunelle, Danish, & Forneris, 2007; Eccles & Barber, 1999; Goudas & Giannoudis, 2008; Larson, 2000; Papacharisis, Goudas, Danish, & Theodorkis, 2005). Unfortunately, not all experiences in sports are positive and participation alone does not guarantee beneficial outcomes. Previous research shows that the difference between positive and negative developmental outcomes for youth has less to do with playing the sport and more to do with the orientation of the sport organization, quality of coaching, nature of parental involvement, and participants' experience with peers (Carson, 2010; Smith & Smoll, 2002; White, 1996). Therefore, understanding these key contextual factors is crucial in the pursuit of creating positive sport experiences that facilitate adaptive developmental outcomes for children and adolescents.

In the developmental literature, PYD is a broad concept used to define the promotion of desirable outcomes and a bolstering of strengths among youth, rather than a focus on reducing negative behaviors (Gould & Carson, 2008; Larson, 2000). Furthermore, research on PYD posits a connection between environmental factors surrounding an individual and the development of desirable outcomes. The view that acquisition of such competencies, assets, values, or life skills can help youth become successful adults and contributing members of society is in essence Positive Youth Development (PYD). In exploring the relationship between

youth activities and developmental outcomes, Danish and colleagues defined *life skills* as beneficial outcomes that help guide adolescents away from risky behaviors and that promote thriving (Danish, Petitpas, & Hale, 1993). Life skills are behavioral, cognitive, interpersonal, and intrapersonal skills developed over time that allow an individual to be successful in the different environments in which they live. Life skills such as effective communication, the ability to set goals, teamwork skills, and initiative, are developed within the various microsystems in which children develop and most importantly, they are successfully transferred across settings (Danish et al., 1993). The development of life skills through sport has been documented in the literature, moreover, it has been hypothesized that caring and competent adults (i.e., coaches) within purposefully constructed environments are most responsible for effective teaching and transfer of life skills (Danish, Taylor, Hodge, & Heke, 2004; Smith & Smoll, 1997).

Teaching life skills is important at any developmental stage; however, it is critical during early and mid-adolescence (Eccles, 1999). During this stage, changes in cognitive development are associated with the ability to think abstractly and engage in self-reflection, which affects social and emotional growth. As relationships shift from parent centered to peer centered, adolescents begin to explore and develop their identities in relation to their new social networks. In addition, it has been reported that during adolescence students experience increased boredom, fluctuations in self-esteem, and decreased engagement in school, resulting in subsequent decreases in school achievement (Larson, 2000; Eccles et al., 1999; Feldman & Matjasko, 2005). Recently, however, research in leisure studies and adolescent development have documented the link between participation in extracurricular activities in high school and reduced rates of school dropout and criminal offenses, and an increase in school engagement, achievement, and mental

health (Eccles & Barber, 1999; Eccles, Barber, Stone, & Hunt, 2003; Mahoney, 2000; Mahoney & Cairns, 1997; Marsh, 1992; Marsh & Kleitman, 2003).

Sports are the most popular and highly valued extracurricular activity in the United States, with nearly 41 million youth participating in sport programs across the country (Larson & Verma 1999), thus further exploration of the impact sports have on youth development is warranted. Sports have been categorized as microsystems for PYD because regardless of the sport they provide opportunities to directly teach, practice, and master skills within in a safe, supportive, and structured environment under the supervision of caring adults (Eccles et al., 2003). Research has shown that social, physical, and intellectual skills that may be useful in other contexts, such as school, are frequently taught, modeled, and practiced in organized youth sports. Furthermore, children are afforded the chance to experience success and failure using those skills among an established social network of supportive peers and adults (Eccles et al., 2003). Youth participating in sport also report higher levels of engagement, intrinsic motivation, and enjoyment compared to other activities, which increases the duration of participation and ultimately the capacity for generating long-term positive outcomes (Larson, 2000; Larson & Verma, 1999). Thus, organized youth sport provides a unique context to foster the development of critical life skills during an important developmental window.

Over the past decade research has found numerous positive developmental outcomes as a result of sport participation including development of life skills and values such as initiative, teamwork, self-esteem, respect, social skills, autonomy, as well as increases in physical competence (Barber et al., 2000; Brunelle et al., 2007; Eccles et al., 1999; Goudas & Giannoudis, 2008; Hansen, Larson, & Dworkin, 2003; Holt & Sehn, 2008; Holt, Tamminen, Tink, & Black, 2009; Larson, 2000; Papacharisis et al., 2005). School based sport participation in particular has

also been linked to beneficial schooling outcomes such as positive school affect, a sense of belongingness, higher expected GPA, a higher likelihood of full time college enrollment, and lower dropout rates among males and females (Eccles et al., 2003; Mahoney, 2000; Marsh 1992; Marsh & Kleitman, 2003). Although there are many associations between participation in sports and positive outcomes, it must be noted that sport alone does not build character and negative sport experiences can result in increases in alcohol use, low-self esteem, negative peer interactions, and increased stress (Barber et al., 2000; Hansen et al., 2003).

A prominent thread in the existing youth sports research posits that the developmental benefits associated with participation in sport are highly dependent on the context (Mahoney & Stattin, 2000). Therefore, in order to establish a context that results in character development rather than character deficit youth sports programs must be intentional in creating a structure within a developmental framework and purposeful in training leaders to teach life skills (Danish et al., 2004; Papacharisis et al., 2005). Research indicates that as natural mentors coaches play a pivotal role youth development (Harrist & Witt, 2012; Smith & Smoll, 1997). Moreover, the coach is the person most responsible for developing and monitoring the contextual elements of a youth sports setting. Existing research indicates that a coach's interpersonal skills, competence, and behaviors all have a substantial impact on players' psychosocial development on and off the field (Camire, Forneris, Turdel, & Bernard, 2011; Gould & Carson, 2010; Gould, Chung, Smith, & White, 2006; Gould, Collins, Lauer, & Chung, 2007; Harrist & Witt, 2012; Smoll, Smith, Barnett, & Everett, 1993). However, in an age of highly competitive sports and a 'winning is everything' attitude projected by sport culture, there are few opportunities for coaches to learn about child development or how to effectively facilitate personal development as well as physical talent (Petitpas, Cornelius, Van Raalte, & Jones, 2005; Smith & Smoll, 1997).

In summary, the relationship between sport and life skill development is important to investigate because millions of youth participate in sports, making it a large intervention system to promote adaptive development among youth. However, both positive and negative effects have been associated with participation in sports with outcomes being tied to the differences in structure of the context and leadership of adults. If structured appropriately, sports can provide an optimal environment in which adults can facilitate positive experiences and the development of beneficial outcomes in youth. Sport-based life skill programs (e.g., GOAL, SUPER, etc.), for instance, have capitalized on the inherent developmental context that sport provides with success by training coaches to construct an environment and deliver lessons that facilitate the development of life skills. Evidence from previous research indicates that the context in which sports are provided must be structured with the specific intention of teaching life skills that transcend the court, field, or stadium in order to have beneficial participatory outcomes. Furthermore, since coaches are often responsible for constructing the sport environment they have a considerable impact on the developmental trajectory of their athletes. Therefore, it is critical to investigate how coaches construct appropriate developmental experiences within the sport context to facilitate psychosocial growth among young athletes.

CHAPTER II: Review of the Literature

Theoretical Frameworks and Positive Youth Development

The principles of Positive Youth Development (PYD) are grounded in ecological and developmental systems theory, which is characterized by Bronfenbrenner (Bronfenbrenner, 1986, 1994, 1999) as a bioecological model. This perspective posits that the individual has a bidirectional and reciprocal relationship with the surrounding environment. That is, human development and human behavior are the result of a person (i.e., characteristics, experiences, values, and perceptions) interacting with multiple systems in the surrounding environment over time. The ecological network that surrounds and includes the individual is partitioned into four distinct systems: the microsystem, which includes participants, a physical domain, a location, or a program of activities (i.e., sports); the mesosystem, which is the interrelationships of two or more individuals within the microsystems of the individual (i.e., coach-athlete relationship); the exosystem, which includes situations that may affect the setting in which the individual resides (i.e., organizational philosophy); and the macrosystem, which refers to broader societal and cultural forces that impact development. It is the interaction between these systems and people within these systems that moderate development over time (Bronfenbrenner, 1986). Moreover, depending on the strength of the system, an individual's development may be enhanced or impeded by these interactions. The applicability of the bioecological perspective in regard to supporting the concepts of PYD resides in the supposition of the complex, bidirectional, and reciprocal interaction between an individual and their environment over time that produces change.

Optimal youth development is defined as development that allows an individual to lead healthy, productive, and satisfying life and promotes engagement in civic activities, and participation in social and cultural productivity (Hamilton, Hamilton, & Pittman, 2004). Additionally, the idea of building physical, intellectual, psychological, and social-emotional strengths in youth is the cornerstone of a new decade of developmental theory, research, and practice called Positive Youth Development (PYD) (Lerner, Almerigi, Theokas, & Lerner, 2005; Benson 2003). This model formed in opposition to the deficit-reduction approach of adolescent development that portrayed healthy youth as merely having an absence of problems and focused reducing the problems adolescents would certainly encounter. PYD draws on the optimistic stance that all young people have the capacity for positive developmental change or thriving. The PYD model argues that youth, given the opportunity and support from the environment, can acquire advantageous characteristics or life skills (i.e., interpersonal competence, agency, and initiative) critical to success across different contexts (Benson, 2003; Hamilton, et al., 2004; Larson, 2000). Most essentially, this perspective proposes that positive development emerges when the potential plasticity of human development is aligned with developmental assets in the environment (Lerner, Lerner, et al., 2005).

The PYD framework has immense implications for exploring the effects of organized youth programs, such as sport, on youth development. A fundamental assumption of PYD is that building on present resources is more effective than addressing the deficits of adolescent functioning. As a result, many youth programs have adopted this strength-based framework with the goal of helping children and adolescents become safe, happy, moral, and valuable contributors to society (Benson, 2003). Under the PYD framework, researchers are examining the link between organized youth programs and healthy development, and establishing a

common nomenclature to characterize positive outcomes that transcend the multiple systems in which children live (Benson, 2003; Danish, Nellen, & Owens, 1996; Hansen, Côté, & Deakin, 2005; Lerner, Lerner, et al., 2005).

Life skills. Steve Danish, a leader in the field of research about life skills development among young people, and his colleagues conceptualize beneficial outcomes as a result of participating in youth activities as life skills (Danish, 1996). Life skills are defined as those behavioral, cognitive, interpersonal, and intrapersonal skills that enable an individual to succeed in the various environments in which they live, including home, school, and in their peer groups (Danish, 1996; Danish et al., 2004). According to the Life Development Intervention model, acquisition of life skills enhances the personal competence of the individual, which bolsters their ability to engage in life planning, be self-reliant, and seek out the resources of others (Danish et al., 1993). Within an athletic context, evidence of the development of various skills is strongly supported, however, this model also assumes that in order for a skill to be considered a life skill, it must also be applied successfully in the multiple contexts in which they live (e.g., school, community, etc). More specifically, Gould and Carson (2008) defined life skills acquired through sport as, “those internal personal assets, characteristics, and skills such as goal setting, emotional control, self-esteem, and hard work ethic that can be facilitated or developed in sport and are transferred for use in non-sport settings” (p.60). In the sport setting, PYD includes learning positive health habits as well as developing adaptive psychological attributes (i.e., resilience), specific skills (i.e., the ability to set goals), and social emotional competencies (i.e., emotion regulation and teamwork) (Hansen et al., 2003).

Recent work by sport psychologists, developmental psychologists, sociologists, and youth leaders have made a significant impact into our understanding of proximal and distal

outcomes of sport participation. New qualitative and quantitative research endeavors are beginning to facilitate understanding of the processes by which positive developmental outcomes are acquired through sport participation. To date, however, evidence of the durability of skills developed through participation in sport across contexts has been difficult to attain. The majority of researchers suggest that transfer of skills is more likely to occur when program leaders teach, model, and engage young people in practice of a skill, and emphasize its importance in a different context (Brunelle et al., 2007; Danish, Taylor, & Fazio, 2003). However, the efficacy of such strategies with regard to durability overtime and utility across contexts is largely unexplored, thus more research is needed to investigate how coaches can successfully impact this process (Danish & Carson, 2008; Holt et al., 2009).

Extracurricular Activity Participation and Positive Youth Development

Adolescence can be marked by increased feelings of boredom, alienation, underachievement, disengagement, and evidence of hours of unsupervised leisure activities (Feldman & Matjasko, 2005). In contrast, extracurricular activities are viewed as an important developmental context embedded in other microsystems in which children live (Feldman & Matjasko, 2005) and there is a growing body of research in both developmental and sociological paradigms demonstrating the positive effects of participation in extracurricular activities for adolescents. The popularity of school based extracurricular activities spurred research that considered not only the outcomes of participation, but also the interaction between the characteristics of the extracurricular activity (e.g., type, duration, intensity, etc.) and the pattern of beneficial and maladaptive outcomes (Eccles et al., 2003; Feldman & Matjasko, 2005; Larson, 2000).

Extracurricular activities share common characteristics that facilitate skill building such as high structure, adult mentoring, social interaction, and voluntary participation (Feldman & Matjasko, 2005). Findings suggest that these characteristics provide adolescents' opportunities to explore one's identity, generate social and human capital, and offer a challenging yet supportive setting outside of school. Specifically, structured voluntary activities (as compared to low structured activities) facilitate high concentration, moderate challenge, and intrinsic motivation. The presence of these factors is correlated to the development initiative (Larson 2000), lower levels of antisocial behavior (Mahoney and Stattin, 2000), and beneficial academic outcomes (Marsh, 1992) among adolescents. There is also a documented relationship between participation in extracurricular activities and improved self-esteem and interpersonal skills, and lower rates of depression, school dropout, and delinquent behaviors, especially for high-risk youth (Broh, 2002; Eccles & Barber 1999; Mahoney, 2000; Mahoney and Carins, 1997). Moreover, Mahoney (2000) suggested that engagement with a supportive peer network was a critical factor in explaining the relationship between participation in extracurricular activities and decreased deviant behavior.

As an important developmental context, extracurricular activities also provide a place to develop social identities, gain social skills, and garner social resources (Eccles & Barber, 1999). Students participating in extracurricular activities have the chance to form meaningful relationships with peers and develop a mentoring relationship with adults, which provides a sense of group membership (i.e., belonging). Engagement in school based extracurricular activities increases associations with academically oriented peer groups and provides a sense of meaning and purpose attached to the schooling process, thereby increasing school engagement and academic achievement (Barber et al., 2000; Broh, 2002; Eccles & Barber, 1999; Eccles et

al., 2003). For adolescents who do not excel in the classroom, extracurricular activities also provide an opportunity to develop nonacademic skills and feel a sense of competence, connection, and belonging to the school community (Feldman & Matjasko, 2005; Fredricks & Eccles, 2005; Eccles & Barber, 1999; Eccles et al., 2003; Mahoney, 2000).

Finally, extracurricular activities require an individual to formulate challenging goals and develop strategies to meet those goals in an iterative cycle, thus developing critical self-regulation skills. Extracurricular activities provide opportunities for adolescents to develop agency, initiative, and resilience through experiences with challenge in a supportive context of peers and adults (Eccles et al., 2003; Larson 2000). For instance, Larson, Hansen and Montea (2006) conducted an analysis of rates of experiences across different organized activities with 11th grade students. Results indicated that adolescents in faith based groups, sports, performance/fine arts, and service related activities reported high rates of positive experiences including identity work, initiative experiences (e.g., goal setting, time management, etc.), emotional regulation, positive relationships, and connections to adults. Furthermore, the knowledge, skills, and abilities developed through participation in extracurricular activities were hypothesized to generalize to other settings, helping youth succeed in college, careers, and community life (Mahoney, Cairns, & Farmer, 2003). In sum, a review of the literature on extracurricular activities shows that participation in extracurricular activities in middle and high school provides a supportive network for the individual that buffers against engagement in risky behaviors and promotes positive academic and developmental outcomes.

Sports as a Setting for Positive Youth Development

Sports are the most common extracurricular activity for youth in the United States and existing research provides evidence that participation yields positive physical and psychosocial

outcomes (Feldman & Matjasko, 2005; Larson & Verma, 1999). Sports share a number of important characteristics with other extracurricular activities that make it a powerful positive youth development context. Sports are highly structured and supervised by caring adult mentors; sports provide ample opportunity for social interaction and teamwork; and sport participation is voluntary. It is well documented that children who participate in sports have increased physical fitness, decreased body fat, and higher exercise participation into adulthood than children who do not (Bailey, 2006). Sport participation may also enhance self-perceptions of fitness, help young athletes feel confident about their bodies, and facilitate the value of being fit for life (Strachan, Côté, & Deakin, 2011). In addition to physical outcomes, research shows that participation in youth sport is associated with experiences unique to the sport context that develop select life skills such as initiative, teamwork, social and emotional competence, self-efficacy, and the ability to set goals and problem solve (Barber, 1999; Brunelle, Danish, & Forneris, 2007; Eccles et al., 2003; Goudas & Giannoudis, 2008; Holt, Tink, Mandigo, & Fox, 2008; Larson et al., 2006; Papacharisis et al., 2005). Although sports naturally provide a positive developmental context (due to the aforementioned characteristics), sports are also highly competitive, which can expose youth to risky social behavior and an overemphasis on performance outcomes (i.e., winning) that can cause negative experience and result in maladaptive outcomes.

Risk factor. Unfortunately, sport participation is associated with negative experiences such as stress, risky behavior (i.e., alcohol use), and negative group dynamics (Eccles & Barber, 1999; Hansen et al., 2003), which can produce undesirable outcomes such as lower perceptions of physical and psychosocial competence, maladaptive motivational orientation (i.e., ego orientation), and decreased enjoyment (Anderson, Funk, Elliott, & Smith, 2003; Babkes & Weiss, 1999; Gould, Lauer, Rolo, Jannes, & Pennisi, 2008; White, 1996). For example, Larson

et al. (2006) concluded that adolescent athletes most often experienced stress in sport as a result of the inherent achievement focus and the public nature of competition in sports. In a study examining athletes' unique experience with stress, Fraser-Thomas and Côté (2009) found that some athletes (aged 14-18) expressed an inability to deal with stress associated with their sport and that the stress was also related to negative coach-athlete interactions. Eccles and colleagues have consistently found team sport participation, in comparison with other extracurricular activities, to be linked with increases in risky behaviors, stress, and exposure to inappropriate behavior of adults (Eccles et al., 2003; Fredricks & Eccles, 2006).

Parent feedback and behavior can also affect how long a child stays involved in a sport, how the child perceives his or her abilities, and the enjoyment they receive from sport. For instance, children who perceived their parents to emphasize a motivational climate (where success is related to low effort) were more likely to demonstrate low persistence on challenging tasks, unsportpersonlike behavior, and a desire to participate based on gains in social status (White, 1996). When the volume (time spent and repetition), competitive stress, and parental involvement that accompanies highly specialized training programs becomes excessive (e.g., emphasis on achievement outcomes, decrease in social life, etc.), the previously enjoyed activity becomes an adverse source of stress (Wiersman, 2000). Although these studies highlight the negative impact sports can have, they also illuminate the potential for adults to construct a positive context that enhances the opportunity for healthy outcomes.

Protective factor. Despite some negative effects, participating in sports is consistently associated with adaptive psychosocial development and is largely considered a protective factor for academic outcomes (Broh, 2002; Eccles & Barber, 1999; Eccles et al., 2003; Marsh, 1992). Sports afford opportunities for identity exploration, problem solving, and emotional development

as well as opportunities to build skills like initiative and goal setting. In addition, distal outcomes vary from higher likelihood of college attendance, higher self-esteem and lower rates of depression, to civic engagement. For instance, using data from the Maryland Adolescent Development in Context Study (MADICS) Fredricks and Eccles (2006) found positive relationships between participation in high school sports and higher academic and psychological adjustment at 11th grade, as well as higher education status and civic engagement two years later. Participation in sports in 8th grade also predicted an increase in resiliency over time, decreases in depression for youth from higher social economic backgrounds, and participation was positively related to pro-social peer engagement for youth from low social economic homes (Fredricks & Eccles, 2006). Participation is hypothesized to have beneficial school outcomes in part because it raises an individual's status within the school, extending social affiliations with the community and connecting them with adult mentors in the school community.

A study by Hansen, Larson, and Dworkin (2003), used the Youth Experiences Survey 2.0 (YES-2) to document how often adolescents in youth activities reported experiences within domains of positive and negative experiences. A sample of 450 high school students participating in organized youth activities were surveyed and those participating in sports reported higher rates of self-knowledge, emotional regulation, and physical skills as well as some negative experiences including negative peer interaction. Hansen and colleagues (2003) believed that the challenge-achievement focus of competition facilitated the athletes' development of skills such as persistence in pursuit of goals, self-evaluation, and character building experiences necessary to successfully reach a team goal. However, such experiences with competition also exposed youth to stressful situations that significantly challenged their character and induced

stress. This study suggests that there is a delicate balance between competition and support that has the potential to produce optimal development within the sport context.

Larson and colleagues (2006) found that participation in organized sports, in comparison to other extracurricular activities, was associated with high rates of initiative experiences (e.g., setting goals, applying effort, and learning time management, etc.) and experiences related to emotion regulation. Similarly, Gould and Carson (2010) found that emotion regulation, cognitive skills, feedback, prosocial norms, and linkages to the community were perceived as the most significant outcomes by high school students participating on a sport team as measured by the YES-2. In a sample of underserved middle and high school youth (N= 239), Gould, Flett, and Lauer (2012) measured participation outcomes and the sport climate using the YES-2, the Caring Climate Scale, the Motivational Scale for Youth Sports, and coaching behavior life skill items. Results from this study demonstrated that the athletes' perceived teamwork, social skills, physical skills, and initiative as the benefits produced from their involvement in sport and that their sport experience was characterized by a mastery oriented and caring climate.

In order to measure perceived participatory outcomes, Holt and colleagues (2008) interviewed 12 male student athletes and the head coach of a men's soccer team at a high school. Athletes reported behaviors and attitudes consistent with the concept of initiative (e.g., setting realistic goals, managing time, taking responsibility, etc.), responsibility, respect, teamwork and leadership through their participation in high school soccer. In a subsequent study, Holt and colleagues (2009) asked male and female athletes (N= 40) what life skills they learned, how they learned them through their participation in competitive sport, and how they have applied these life skills to others areas of their lives. Athletes reported that through their participation in high

school sport they expanded social networks and developed the ability to work with other people (i.e., teamwork) (Holt et al., 2009).

Similarly, coaches interviewed in Strachan, Côté, and Deakin's (2011) qualitative study reported that their athletes developed responsibility, decision-making, autonomous action, tolerance, time-management and trust. Additionally, they believed their athletes learned to overcome fear, developed mental toughness, possessed a strong work ethic, and developed good concentration skills from their participation in elite-level sport. Coaches believed that these life skills were facilitated within the elite sport context through supportive interactions with peers and coaches, the provision of opportunities for physical, cognitive, and life skill instruction, and an appropriately structured training environment. In sum, review of the literature demonstrates that there is a strong relationship between participation in sport and the development of important life skills and that this relationship is highly dependent on contextual factors, such as opportunities for skill building and social interactions with peers and coaches.

Program Characteristics Supporting Beneficial Outcomes

The popular saying, "sport builds character" implies that simply participating in sports automatically reduces risky behaviors and increases healthy behaviors in children. Over the past few decades, research has in fact established a strong link between participation in extracurricular activities and beneficial psychosocial outcomes such as the development of a sense of morality, values, and life skills (Fredricks & Eccles, 2006). Yet, in a society where sports are highly valued and competitive sport programs, parents, and coaches too often are focused on 'winning at any cost,' the potential for positive experiences and desired developmental outcomes is diminished. Overall, research shows that the difference between sports building character or character deficits is related more to the philosophy and structure of

the sport organization, the quality of relationships, and the opportunities for skill building, than the actual play or type of sport (Fraser-Thomas, Côté, & Deakin, 2005; Holt et al., 2009; Petitpas et al., 2005).

The National Research Council and Institute of Medicine (NRCIM) (Gootman & Eccles, 2002) delineated four areas for youth development: physical, intellectual, psychological/emotional, and social with a total of eight corresponding contextual assets that should be present in order for youth programs to successfully facilitate PYD (Fraser-Thomas et al., 2005; Perkins & Noam, 2007). Although researchers are just beginning to understand how combinations of these assets promote positive development, these components have been considered explanatory mechanisms by which participation in organized activities impact development. Available research suggests that the presence of the NRCIM's eight contextual assets are empirically valid, however, the existence of an appropriate training environment, the presence of supportive social interactions, and the provision of opportunities for physical, personal, and social skill development are the essential assets in regard to promoting positive psychosocial growth in youth sport (Fraser-Thomas et al., 2005; Lerner, Almerigi, et al., 2005; Petitpas et al., 2005; Strachan et al., 2011; Zarrett et al., 2009).

Safety and structure. The first component from the NRCIM includes *physical and psychological safety*, which is characterized as having a space free of health and safety hazards and an environment that promotes a positive, supportive, and mutually respectful emotional climate (Perkins & Noam, 2007). In the context of sport, the physical risks for athletes can be reduced by providing proper supervision, teaching proper skill mechanics, and using appropriate progressions. In addition, establishing a sense of family and through encouragement, caring, and helpfulness can create a psychologically supportive environment where athletes are more likely

to take risks, persist on challenging tasks, and learn from mistakes (Gould & Carson, 2010; Strachan et al., 2011). Sport programs should also strive to create an *appropriate structure* in which sessions or practices follow a developmentally appropriate pace. Explicit rules, expectations, and responsibilities for youth, parents, coaches, and staff should be clearly communicated. The context ought to create an environment that is intrinsically motivating and meaningful, while providing clear goals and incentives that require participants to commit considerable effort over time (Larson, 2000). Research also illustrates that within an elite sport environment appropriate structure also includes deliberate practice, opportunities for competition, and clear expectations of training demands (Strachan et al., 2011).

Supportive social context. The quality of the social interactions and relationships formed with caring adults, such as a coach, are significant indicators of positive sport experiences and hence life skill development for youth (Fraser-Thomas et al., 2005; Harrist & Witt, 2009; Holt et al., 2009; Jowett & Cockerill, 2003; Gould & Carson, 2010; Petitpas, Van Raalte, Cornelius, & Presbrey, 2004). Literature on mentoring shows that mentors who hold high positive expectations for youth, demonstrate empathy, and have consistent involvement over time in a young person's life have a significant impact on their life trajectory (Petitpas et al., 2005). Within the sport context, research shows that positive and negative sport experiences, and subsequent outcomes such as life skills, are significantly related to relationships with coaches, peers, and parents, highlighting the need for promoting appropriate relationships within the sport context (Carson, 2010; Anderson et al., 2003). Moreover, in recent studies coaches have expressed an understanding of their responsibility to provide a supportive experience through their interactions with athletes (Strachan et al., 2011). Thus, youth programs should attempt to foster *supportive relationships* wherein adults are intentional in establishing trusting

relationships with youth, holding high expectations for behavior and skill mastery, and generating positive social norms.

Another feature important in creating a supportive social context for youth is allowing each member to find a valued role in the group or *opportunities to belong*. Sport programs that provide opportunities for positive group experiences and inclusive peer relationships, for instance, will likely cultivate an atmosphere where youth strongly identify with the program and their peers (Perkins & Noam, 2007; Petitpas et al., 2004). Additionally, the experience of belonging to a group allows youth to develop a sense of identity and promotes the adoption of positive social norms (Eccles & Barber, 1999). Positive identity, in turn, is linked to feelings of control, the ability to overcome challenges, positive emotional regulation, and positive feelings about the future (i.e., essential life skills). Therefore, sports can provide a context where individuals can develop a status role that satisfies their need to have a defined and valued place among their peers, thus fostering social skills and a positive sense of identity (Petitpas et al., 2005; Eccles et al., 1999).

The culture of a program should also seek to establish *positive social norms* for behavior, including good sportsmanship, fair play, cooperation, empathy, and self-control. In addition, emphasizing positive peer group culture and establishing social norms reduces social alienation and increases the capacity to learn social skills (Perkins & Noam, 2007). In order to foster a culture where success is contingent upon effort programs should also strive to create opportunities for individuals to be recognized for effort, improvement, and sportsmanship. *Support efficacy and mattering* can be achieved through the recognition of effort and focusing on self-improvement, rather than peer comparison. Additionally, adopting an efficacy focus will likely foster the development of strong work ethic, persistence in the face of failure, commitment

to time and effort, and resiliency among youth (Coatsworth & Conroy, 2009; Holt et al., 2007; Holt et al., 2009). Furthermore, mattering can be facilitated by opportunities to engage in community service or helping younger peers within the sport setting (Perkins & Noam, 2007).

Programs that are holistic in addressing the needs of the child and *integrate the family, school, and community* produce more durable beneficial outcomes (Perkins & Noam, 2007; Fraser-Thomas & Côté, 2009). Youth are more likely to experience positive youth development when programs are organized to provide opportunities of civic engagement, character development, and sustained relationships with an adult (Perkins & Noam, 2007). For instance, engagement in community service activities was an important program component linked to positive outcomes among sport-based life skills programs and recognized as important component among the expert coaches (Brunelle et al., 2007; Papacharisis et al., 2005; Perkins & Noam, 2007; Strachan et al., 2011).

Skill building. Finally, the program must provide *opportunities for skill building* within social, physical, and intellectual domains. Participants should engage in activities that build both life and sport related skills such as leadership skills, decision-making skills, communication skills, and civic responsibility (Perkins & Noam, 2007). Sport based life skill programs (e.g., GOAL, SUPER, Play it Smart, etc.) illuminate the use of sports as a vehicle to promote psychosocial development through experiences that facilitate self-discovery and teach life skills in an intentional and systematic manner (Petitpas et al., 2005). According to Petitpas and colleagues (2005), the building blocks of a skill-building environment include constructing an atmosphere that emphasizes active learning, self-discovery, and creates a platform for continuous learning through encouragement of self-evaluation (Petitpas et al., 2005). Programs should provide a balanced and integrated model of life skill and sport skill instruction that includes

opportunities to learn, practice, and reflect on the use of skill within and outside the sport setting (Danish et al., 2003). Programs that focus on integrating these developmental assets outlined by NRCIM and deliver services through an appropriate developmental framework increase the likelihood of positive development through sport and therefore should be used as models for competitive sport programs (Côté, Strachen, & Fraser-Thomas, 2007; Holt & Sehn, 2008).

Programs for Developing Life Skills Through Sport

Recently, youth development programs have started to incorporate sports into their curriculum, using the developmental context that sports naturally provide as the vehicle to teach life skills, competencies, and values. These sport-based positive youth programs also capitalize on the potential for coaches to serve as mentors and require coaches to participate in training before interacting with youth. Sport-based life skill development programs have successfully made a direct connection between the skills and attitudes that can be learned through sport to academic, personal, and career development via coaching curriculums designed to facilitate the development of life skills (Brunelle et al., 2007; Danish, Nellen, & Owens, 1996; Goudas & Giannoudis, 2008; Papcharisis et al., 2005; Petitpas et al., 2004). The most well known programs include Going for the Goal (GOAL; Danish, 1996), Sports United to Promote Education and Recreation program (SUPER; Danish, 2002; Papcharisis et al., 2005), The First Tee Program, and Play It Smart (Petitpas et al., 2004).

GOAL. The Going for the Goal (GOAL) was one of the first initiatives to explicitly teach life skills within a physical education context as a means to reduce engagement in unhealthy behaviors among adolescents. The program focuses on different aspects of goal setting (e.g., developing plans, overcoming roadblocks, learning to problem solve, using resources, and rewarding successes, etc.) through a series of sessions taught by trained middle

and high school students (Danish, 1996). Evaluations of sports-based life skills programs modeled after GOAL such as SUPER, Play it Smart, and The First Tee golf program, substantiated the existing theory that sport can facilitate character development and instill values when combined with a life skills training program (Brunelle et al., 2007).

SUPER. The Sports United to Promote Education and Recreation (SUPER) program integrated the GOAL curriculum with team sports, creating a youth sport program that teaches life skills through three main components: (1) learning the physical skills of the sport, (2) practicing the skills, and (3) learning the life skills related to the sport and how these skills are applied outside the sport. Adaptations of the SUPER program were found to be effective at teaching life skills within a variety of team sport settings including, soccer, volleyball, golf, and the physical education context (Brunelle et al., 2007; Goudas & Giannoudis, 2008; Papacharisis et al., 2005). For instance, Papacharisis and colleagues (2005) implemented an abbreviated version of the life skills program with 40 female volleyball players and 30 male soccer players age 10-12 who participated in competitive leagues. The skill components of the program (i.e., goal setting, problem solving, and positive thinking) were taught during practice using discussions, group learning, goal setting activities, and written worksheets to teach life skills. Results indicated that program participants showed greater knowledge about life skills, higher self-beliefs for goal setting, problem solving, and positive thinking, and performed better in sport specific skills. The success of the SUPER program suggest that when life skill training is embedded in sport practices appropriately, life skills can be learned in competitive and educational settings without sacrificing the enhancement of sport performance skills (Papacharisis et al., 2005; Goudas, Dermitzaki, Leaondari, & Danish, 2006; Goudas & Giannoudis, 2008).

First Tee. An implementation and evaluation study of SUPER was also conducted at the First Tee national youth golf academy, an organization whose mission is to impact the lives of young people by promoting character development and life-enhancing values through golf (Brunelle et al., 2007). Life skill sessions were taught in an integrative fashion with golf activities and, in addition, participants were asked to commit to community service for one year after the program with the goal of promoting a seamless transfer of learned skills to other areas of life. Those who participated in the life skills component showed increased scores on social responsibility, social interest, and goal knowledge from pre to post test. Additionally, those who participated in community service after the intervention component demonstrated continued enhancement of prosocial values. These results indicate that implementing life skill programs geared toward personal development within athletic contexts increased adolescent prosocial values and social responsibility, however, the enduring nature of learned values was dependent on opportunities for continued practice outside the sport setting (Brunelle et al., 2007).

Play it Smart. The Play it Smart program revolves around a developmental framework that focuses on generating academic success for at risk male adolescents by building life skills on the football field and identifying the transferability of life skills to academic preparation, maintaining relationships, and functioning in a workplace. The program also capitalizes on coaches as strong positive adult influences. Results from two-year pilot programs in high schools across the United States revealed increases in participants' (N= 252 males) grade point average, SAT score, graduation rates, and community service activities (Petitpas et al., 2004). Success was attributed to positive relationship with adult mentors and the creation of positive group experiences.

Girls on Track. Waldron (2009) compared the effects of participation in a nonprofit sport based life skills program for adolescent girls, the Girls on Track (GOT) running program, to the effects of participating in other programming like soccer and Girl Scouts. Participants reported attaining life skills including identity development, social responsibility, decision making, as well as an understanding of their body and what it means to be healthy (Waldron, 2009). In comparison to other programs, girls who participated in GOT learned important interpersonal skills that may be beneficial in reducing relational aggression and learned about health maintenance and body issues which can be problematic in early and middle adolescence for females (Waldron, 2009).

Across these evaluative studies, the significant differences between those participating in the various sport based life skill programs and control groups were associated with the explicit nature of the life skills component. This evidence suggests that direct teaching of life skills, emphasizing prosocial values during formal learning, and practicing skilling in activities outside the sport context (i.e., community service) are key in facilitating the learning and transfer of important life skills through sport (Brunelle et al., 2007; Danish, 1996; Papacharisis et al., 2005; Waldron, 2009). The success of these programs in facilitating life skill development in a variety of athletic venues supports sport as a context in which to teach life skills among male and female athletes. In addition, findings illustrate the importance of creating a carefully and purposefully integrated program with life skills instruction and opportunities to engage meaningful relationships with peers and adults. Although these programs provide an excellent model for understanding the intersection between sport and PYD, there is a dearth of research examining the specific coaching behaviors that produce beneficial outcomes within competitive youth sport

settings, rather than a youth development setting that simply uses sport as a vehicle to teach life skills.

The Role of Adult Mentors

Mentoring is defined as a caring and supportive relationship between a youth and a non-parental adult such as a relative, teacher, or coach and research suggests that adults in mentoring roles have the potential to guide youth in successful experiences that positively impact development. Effective mentoring takes a delicate balance of guidance and autonomy support as mentors who are over controlling undermine youth ownership, motivation, and subsequently decrease the potential for psychosocial learning. Relinquishing control to youth, however, leads to a loss of challenge, which can also decrease motivation. Rather, supporting youths' experience of a sense of ownership through setting high appropriate expectations is likely the most efficient way for mentors to increase internal motivation and subsequently develop agency among youth (Larson, 2006). Likewise, Rhodes, Spencer, Keller, Liang, and Noam (2006) suggested that effective mentors employ joint decision-making, provide moderate challenge, and find ways to balance fun and hard work.

The relationship between a mentor and a child promotes social and emotional learning by providing opportunities for companionship during shared activities, supportive emotional experiences in the face of challenges, and modeling of emotional self-regulation. Furthermore, skills learned through a mentor may generalize and help improve the youth's own relationships. Mentors can provide exposure to new learning experiences, support intellectual growth through scaffolding, and promote academic success via support for academic effort. Moreover, adult mentors can support identity exploration by becoming a social mirror into which young people look to form opinions about possible future selves. Finally, qualities such as empathy, trust,

authenticity, mutual respect, sensitivity, and attunement are important in developing relationships that foster positive developmental outcomes among youth (Rhodes et al., 2006).

The coach's role in positive youth development. Within sport, youth can develop a variety of adaptive skills. They can learn to compete appropriately and cooperate with others, learn about risk taking, commitment, and important attitudes about persistence, achievement and how to deal with success and failure (Smith & Smoll, 1997). In addition, children can learn life long health and exercise values (Bailey, 2006). One of the most important factors determining such positive outcomes is the way these developmental contexts are structured and supervised by the adults who play an important role in organized sports. Coaches are the central figure in sports who provide evaluative feedback and technical instruction to facilitate physical aptitude in a setting in which competence is highly valued and social comparisons are prevalent. Although many coaches are well versed in technical instruction, far fewer are knowledgeable with regard to the social and developmental needs of youth and therefore fall short of their potential to cultivate important life skills.

Côté and Gilbert (2009) defined coaching effectiveness as “the consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes’ competence, confidence, connection and character” (p. 316). Results from research into the role of coaches reflect this recent shift from defining a coach’s role as being solely responsible for producing physical outcomes, to a holistic perspective where it is a priority to teach athletes life skills (Gould et al., 2006; Harrist & Witt, 2012; Vella, Oades, & Crowe, 2011). For instance, Gould and colleagues (2006) investigated how coaches perceived their role in regard to developing life skills, how they promoted life skills, and what the perceived barriers were in working with adolescent athletes. Gould et al. (2006) surveyed 154 randomly selected high

school varsity head coaches from seven different sports using a developed instrument called the Positive Youth Development Through Sports Survey. Results showed that coaches believed their most important role was helping the psychological and social development of athletes and coaches felt that athletes developed teamwork, work ethic, time management, and goal setting skills through their participation in sport (Gould et al., 2006). In another study, Harrist and Witt (2012) interviewed three coaches of adolescent female basketball teams and found that the coaches identified player improvement, development of life skills, and having fun as the three most important participatory goals.

Similarly, Vella, Oades, and Crowe (2011) interviewed 22 male and female coaches who were currently coaching teams of youth-aged athletes (11-19 years old) in competitive sport settings including soccer, netball, softball, cricket, and basketball. The investigators sought to understand how coaches' feelings of responsibility for positive development was correlated with the outcomes they desired for their athletes as a result of their coaching. Coaches in this study reportedly viewed themselves as responsible for the development of both sport-specific and non-sport specific competencies including a range of positive developmental outcomes. Coaches articulated their role as 'climate engineers,' emphasizing their part in creating positive relationships between team members and creating a challenging atmosphere in order to develop the psychological capacities of resilience, optimism, and perseverance (Vella et al., 2011).

Camire and colleagues (2011) summarized a series of studies on expert coaches and found that it was important for coaches to develop a well thought out coaching philosophy that prioritized the physical, psychological, and social development of athletes and that delicately balanced winning and personal development. In Harrist and Witt's (2012) qualitative investigation of three basketball coaches and 31 adolescent female athletes aged (12-16), results also revealed support

for an association between demonstration of a consistent coaching philosophy and the athletes' perceptions of positive developmental outcomes. Emerging support for the coaches' role as a facilitator of life skill and personal development (Vella, Oades, & Crowe, 2010) illustrates the critical nature of investigating coaching goals, behaviors, and strategies as well as the athletes' perceptions of what coaches do.

Establishing meaningful relationships: The coach-athlete relationship. Sport coaching has recently been defined as a complex social process composed of and maintained by reciprocal, interpersonal relationships that are affected by certain contextual constraints (Vella et al., 2010). Theoretical models of coaching have proposed that the ultimate effects of coaching behaviors are mediated by the athletes' perception or meaning they attribute to coaches' actions (Smoll & Smith, 1989). Moreover, the coach-athlete relationship may serve as a moderating variable between coach behavior and athlete outcomes because it functions as a filter through which athletes form perceptions of coaches' behavior. According to the coaches in Vella et al., (2011) the building blocks of a positive climate between a coach and an athlete are the coach's interpersonal skills, the ability to create a positive interpersonal connection, and establish a united sense of purpose and achievement with the athlete. To this point, a high quality coach-athlete relationship then increases the likelihood of facilitating desired athlete outcomes (e.g., competence, character, confidence, and connection) due to its impact on athlete perceptions (Vierimaa, Erickson, Côté, & Wade, 2012). Thus, building a meaningful coach-athlete relationship can be viewed as a strategy that increases a coach's effectiveness with regard to fostering positive developmental experiences.

The coach-athlete relationship is defined as a dynamic situation in which a coach and an athlete's cognitions, feelings, and behaviors are mutually and casually interrelated (Jowett,

2007). Jowett and colleagues (Adie & Jowett, 2010; Jowett, 2007; Jowett & Meek, 2000) described an integrated model (3C +1) of the coach-athlete relationship that utilizes several interpersonal and psychological constructs as the hallmarks of effective coach-athlete relationships. According to this model, feelings of familiarity (closeness), intention to maintain a relationship (commitment), the degree of cooperation or common ground between a coach and athlete (co-orientation), and reciprocity (complementary) are the four constructs crucial to building positive coach athlete-relationships (Jowett, 2007). Furthermore, the presence of these relational constructs in a coach-athlete relationship has been shown to predict positive relational experiences for athletes. For instance, Jowett and Cockerill (2003) interviewed 12 former Olympic athletes (three female and nine male) and asked open-ended questions about the nature and significance of their relationship with their coach. The former athletes revealed important characteristics of the relationship that reflected the constructs of closeness and co-orientation such as mutual respect, trust, care, concern, support, open communication, shared knowledge and understanding, and clear corresponding roles. Moreover, the athletes' felt that both the 'human relationship' and the 'training relationship,' between the coach and athlete played a crucial role in their development as a person and as a performer (Jowett & Cockerill, 2003).

Coaches in a different study indicated that demonstrating credibility and having the knowledge and skills to coach effectively were the first steps to garnering respect and building a relationship with athletes (Camire et al., 2011). Likewise, athletes reported that a coach's competence along with the ability to engage in horizontal relationships with players (i.e., get on their level) helped to generate mutual respect and closeness in the relationship. Harrist and Witt (2012) observed basketball coaches balancing corrective feedback with friendly dialogue (e.g., giving fist bumps, high fives, and trash talking, etc.) as methods coaches used to establish

horizontal relationships. Interviews with coaches and female basketball players also revealed that those coaches who made a point to know every player on the team, treated players equally, and let players know their opinions had an impact the development of self-determination and initiative among their athletes (Harrist & Witt, 2012). Coaches reported organizing team activities, holding individual meetings, using humor, and journaling in order to facilitate introspection, reflection, and problem solving among their athletes. These strategies allowed the coach to gain insights about the athletes' perceptions and feelings as it related to their lives outside of athletics, thus creating a stronger relationship (Camire et al., 2011; Harrist & Witt, 2012).

Developmental research continually emphasizes the impact of supportive relationships with adult mentors, such as coaches, as essential to engendering positive development among youth. For instance, the life skill gains seen among athletes in Gould and Carson's (2010) study were associated with perceived coach-athlete relationships, which confirmed previous findings (Gould et al., 2006; Gould et al., 2007) about the importance of positive relationships as a mediator for positive developmental outcomes. Gould and colleagues (2007) stated, "a key to developing both life and performance skills for these coaches was the ability to build relationships with their players. They did this through their strong communication skills and by treating their athletes as young adults" (Gould et al., 2007, pg. 29). Carson (2010) also found that open communication, fostering a family like climate, holding high expectations, and showing respect helped to build closeness in the coach-relationship, which in turn facilitated life skill development among athletes. Athletes in a study by Fraser-Thomas and Côté (2009) also reported that positive experiences and the development of self-efficacy were related to positive interactions with coaches; on the other hand, negative experiences were related to poor

relationships with coaches and peers. Specifically, athletes reported that a coach's belief in them, which was evident in a coach's enthusiasm, positive focus, and encouragement, and positive interactions, was related to beneficial outcomes. Given evidence that the coach-athlete relationship can affect the overall sport experience as well as the development of specific life skills, targeting interventions to help build positive coach-athlete relationships is vital.

Coaching behaviors: Direct and indirect strategies. In the context of sports, coaches are the adults who interact with youth the most and the majority of coaches generally believe that it is their responsibility to promote positive development among youth. Additionally, many of the variables identified as essential in the creation of contexts that support PYD (e.g., supportive relationships, implementation of clear rules, and expectations, and positive social norms, etc.) are within the control of coaches (Fraser-Thomas et al., 2005). Thus, recent research has focused on understanding how coaches effectively structure the sport environment and what actions coaches take to facilitate positive developmental experiences for youth. Review of the literature shows that coaches engage in a number of direct strategies such as explicit teaching, active learning, and practicing skills, as well as indirect strategies such as modeling, creating high expectations, and reinforcing skills through team norms.

Becker (2009) used phenomenological research methods to explore athletes' experiences of "great coaching" by interviewing 18 elite level male and female athletes (aged 22-42) from various sports and differing levels. Analyses revealed six major dimensions that characterized athletes' experiences of great coaching including coach attributes, the environment, the system or coaching philosophy, relationships, and coaching actions and influences. Becker (2009) found that the coach's characteristics, the coach-athlete relationship, the environment, and the system formed the stable background of the athletes' experience, while coaching actions had the most

significant impact on outcomes. Moreover, coaching actions were categorized into seven general themes that illustrated that coaching greatness is “not about what coaches do, but rather how they do it” (Becker, 2009, pg. 107). According to the athletes’ reports great coaches teach, communicate, motivate, respond, prepare, perform, and disregard the irrelevant. Athletes’ reported that coaches who taught and modeled cognitive, physical, and life skills, as well as reinforced individual improvement over performance (i.e., winning) were successful in teaching the athletes about life. The coaches’ reported varied teaching methods (e.g., physical, visual, verbal, etc.) and emphasized active learning in order to promote skill development. The athletes noted that their coaches communicated performance information, player roles, and individual and team goals in direct and indirect ways, and that great coaches set clear expectations. Some of the skills athletes’ reported learning were how to deal with pressure, handle adversity, and work with others. Athletes also reported internalizing characteristics such as respect, patience, and self-reliance.

The aforementioned coaching strategies and behaviors such as having a mastery goal orientation, emphasizing overcoming adversity, and using multimodal teaching methods have been mirrored in other studies as well. Gould and colleagues (2007) interviewed ten expert high school football coaches who were finalists for the NFL “Coach of the Year Program,” which indicated that these coaches were identified as having a major influence on the life development of their athletes and high levels of success (Gould et al., 2007). In depth interviews asked coaches about their coaching philosophy and style, goals and strategies for life skill development, and barriers to success. Coaches were able to identify a number of explicit strategies they used to develop life skills among their athletes including treating players respectfully, employing positive motivational techniques, facilitating team building activities,

and emphasizing skills such as discipline, work ethic, and emotional control on and off the field. Coaches reported that they individualized reinforcement for each player by considering each individual's emotional state and various contextual factors in order to motivate individual athletes. Coaches also identified holding high and consistent expectations of player behavior and holding players accountable to performance standards as strategies used to develop responsibility among players (Gould et al., 2006; Gould et al., 2007). Similarly, Carson (2010) found that across parents, alumni, and coaches, strategies such as holding athletes accountable, discussing the importance of life skills on and off the court, providing opportunities to practice skills, modeling, and cultivating relationships with athletes were most effective in fostering the development of life skills.

Gould and Carson (2010) further highlighted the importance of coaching behaviors in a quantitative study that examined the link between athletes' perceptions of coaching behaviors and positive developmental outcomes using the Coaching Behavior Scale for Sport (Côté, Yardley, Sedgwich, Hay & Baker, 1999), the Youth Experiences Survey 2.0 (Hansen & Larson, 2005), and additional coaching behavior items. Results from the sample of 190 former high school athletes (64% female; 82% Caucasian) indicated that former athletes who reported positive sport experiences also reported the following coaching behaviors: teaching competitive strategies, mental preparation, goal setting, modeling good sportsmanship, motivating one to work hard on his or her own, and emphasizing how sports lessons relate to life. The positive outcomes or skills most significantly related to these identified coaching behaviors included emotion regulation, cognitive skills, feedback, prosocial norms, and linkages to the community. In addition, former athletes who perceived their coaches as effective in regard to character building indicated that their coaches emphasized moral development, fair play, respect for

others, and good sportsmanship (Gould & Carson, 2010). Conversely, former athletes who reported more negative rapport with their coaches were more likely to report experiencing stress, negative group social dynamics, and exclusion. The variability in sport experience and developmental outcomes demonstrated by these findings is not unique, as many studies have verified a relationship between coaching behaviors and both positive and negative outcomes for athletes (Gould et al., 2012; Holt et al., 2009).

In a series of studies, Coatsworth and Conroy assessed the outcomes of a psychosocial coaching training program that included autonomy supportive coaching strategies (i.e., supporting an individual's belief that their behavior originates internally). Additionally, Coatsworth and Conroy (2009) assessed the association between the coaching climate and athlete self-perceptions and positive youth outcomes in a sample of 83 youth swimmers (age 10-17) from a recreational league. Conroy and Coatsworth (2006, 2007) found that training youth swim coaches in psychosocial and behavioral principles effectively enhanced the coach-athlete relational context and was associated with gains in self-esteem among some athletes. In both studies coaches' autonomy supportive behavior was associated with athlete self-perceptions of competence and their sense of relatedness to their coach, which in turn facilitated the development of outcomes such as self-esteem, initiative, and identity.

Research shows that coaches who focus on creating a mastery oriented climate help to bolster intrinsic motivation, promote strong work ethic, initiative, commitment, and increase self-esteem and a sense of competence among athletes (Coatsworth & Conroy, 2009; Gould et al., 2012; Holt et al., 2009). More specifically, Holt and colleagues (2009) found a relationship between coaches' efforts to create a climate that emphasized effort, persistence, teamwork, and sportsmanship and athletes' reports of learning teamwork and initiative. On the other hand,

coaches who overemphasized winning, used social comparison or punitive strategies created a performance-oriented climate, which was associated with athletes' reports of stress and lower levels of skill acquisition. Gould et al. (2012) also assessed the relationship between participants' reported life skill gains and perceived coach created sport climate in a sample of 239 middle and high school athletes. Results showed that the more a coach created a mastery-oriented environment, the more likely the athletes were to report positive developmental gains. Thus, in a context predicated on competition and performance based evaluations, creating opportunities to reward effort and play for fun are important strategies to reduce the stress and negative experiences associated with the competitive nature of sports. Additionally, the encouragement of self-reflection and recognition of player achievement, use of humor, and promotion of positive peer social interactions are a large part of creating an enjoyable, mastery oriented atmosphere (Harrist and Witt, 2012; Holt et al., 2008).

Camire et al. (2011) also highlighted the use of several intentional and purposeful coaching strategies designed to explicitly teach life skills. For instance, coaches reported teaching their athletes about SMART goals, helping their athletes develop short and long-term goals for sports and life, and creating a plan in order to reach those goals (Camire et al., 2011; Gould et al., 2006). In regard to supporting acquisition of life skills both players and coaches noted that active or experiential learning, that is having players be a part of the learning process versus receiving instruction via lecture, was important (Camire et al., 2011; Harrist & Witt, 2012). Specifically, having athletes make decisions about practice, giving athletes more responsibility on and off the court, or having them volunteer in the community, fostered the development of organization, leadership, initiative, and compassion. Moreover, coaches are often looked to as models of appropriate and inappropriate behavior, therefore, they believed that

by demonstrating life skills such as emotional control they would likely influence the behaviors players would engage in during similar challenging life situations (Holt et al., 2008). Gould and Carson (2008) concluded that exhibiting positive behaviors was just as important as explicit instruction and suggested that coaches should teach life skills through both direct teaching strategies (e.g., rules, reinforcement) and indirect teaching strategies (e.g., modeling).

Smith, Smoll, and Curtis (1979) created a behavioral intervention called Coach Effectiveness Training (CET) from a developmental framework that focused on positive coaching with a democratic leadership style. The program focuses on increasing reinforcement for effort, mistake-contingent encouragement, corrective instruction that is encouraging and supportive, while emphasizing having fun. Smith and colleagues (1979; Smith & Smoll, 1990; Smoll et al., 1993) conducted a series of studies examining how the actions of youth sport coaches impacted athletes' well being. For instance, 51 coaches of little league baseball teams and 542 of their players (8-15 years of age) were observed using the Coaching Behavior Assessment System (CBAS), an observation and structured interview system that categorizes coaching behavior into categories. Data analysis showed that athletes were most sensitive to punitive behaviors and athletes' perceptions of coaching behaviors were associated with attitudes toward coaches. Using the same data, Smith and Smoll's (1990) analysis yielded two key dimensions of coaching behavior, supportiveness and instructiveness. Results indicated that athletes with lower self-esteem were more responsive to coaches who demonstrated both highly supportive behavior (i.e., positive reinforcement for effort) and highly instructive behavior (i.e., technical instruction for skill enhancement).

In later studies, Smoll, Smith, Barnett, and Everett (1993) trained eight male head coaches of little league baseball teams in CET for two weeks prior to the start of the season.

Athletes reported on coaching behaviors, their attitudes toward coaches and self-esteem pre and post season. Results demonstrated that coaches who were trained with CET notably changed their behavior, and that the behavioral differences resulted in a significant increase in global self-esteem among athletes from pre to post-season. These results are significant in that both supportiveness and instructiveness mediated the coaches' effectiveness in regard to promoting positive outcomes (Smoll et al., 1993). In a summary of evaluations of the CET intervention, Smith and Smoll (1997) indicated that most positive outcomes (i.e., positive attitude toward sport and increased self-esteem) for athletes occurred when they played for coaches who engaged in high levels of positive reinforcement for effort and performance, responded to mistakes with support and technical instruction, and emphasized the importance of fun and improvement over winning.

Evaluations of the First Tee Coach Program, a program designed to teach coaches how to deliver life skills lessons through sport within an appropriate youth development framework, indicated effective coach training could increase the potential for positive participatory outcomes for youth (Petitpas, et al., 2005). The First Tee Coach program developed a set of four building blocks designed to increase the effectiveness of coaches with regard to life skill instruction that included building an environment that emphasizes active learning and self-discovery; using a mastery orientation that emphasizes self-improvement over social comparisons; constructing an atmosphere that empowers youth through appropriate mentoring relationships; and creating a platform for continuous learning through self-evaluation. Evaluations have found that characteristics like empathy, holding high and positive expectations, and advocacy were important coaching characteristics associated with successful outcomes for athlete participants in the First Tee program (Petitpas, et al., 2004). Ongoing longitudinal research with the First Tee

program (e.g., Weiss) has shown that using the four building blocks to train coaches was effective in teaching core values and helping youth retain life skills over several years. Several youth development programs reflect similar constructs with open communication, modeling, reinforcement, self-reflection, and sharing with peers as the foundational strategies for coaches to use in order to produce positive outcomes (Brunelle et al., 2007; Papacharis et al., 2005; Petitpas et al., 2004). In sum, the research illustrates that intentional actions and behaviors of coaches and the nature of the relationship with a coach are major determinants of the youth sport experience and thus developmental outcomes.

Age, sex, and coaching behavior in sport. Title IX has had a huge impact on women's experiences in academics and athletics, as participation and support for women's sports has increased since its passage in 1972. Traditionally, sport and athletic dominance were masculine endeavors, and thus women may still experience conflicting gender-related expectations participating in sports resulting in different developmental outcomes than male athletes (Richman & Saffer, 2000). Subsequent research on the relationship between participation in sport and psychosocial outcomes for females has focused on issues associated with female development such as the development of a healthy self-concept (Daniels & Leaper, 2006; Eccles et al., 1999). The socialization of girls into competitive sport is likely influenced by modeling and reinforcement from significant others (e.g., parents, peers, coaches, etc.), social opportunities to develop skill competency, and personal attributes such as self-perception with regard to physical abilities, motivation, and value toward the physical activity (Weiss & Glenn, 1992).

Mild gender differences have been found with regard to outcomes associated with participation in sports. Female athletic participation is associated with higher GPA and a desire to attend college, while male participation is associated with some positive academic outcomes,

but also higher reports of risky behavior (Broh, 2002; Eccles & Barber, 1999). Additionally, longitudinal studies have shown an increase in global self-esteem among adolescent girls who participated in sports in high school (Daniels & Leaper, 2006; Pedersen & Seidman, 2004; Shaffer & Wittes, 2006). Using data from the National Longitudinal Study of Adolescent Health, Tracey and Erkut (2002) found that for Caucasian girls, sport participation was associated with enhanced self-esteem when it was also associated with increased school attachment and a sense of physical well being. Similarly, Richman and Shaffer (2000) examined the relationship between pre-college sport participation and college self-esteem among 220 college female undergraduates. Findings indicated that participating in sports promoted female self-worth when participation included lessons about fostering physical competencies, favorable body images, and gender flexibility. Furthermore, findings illuminated the fact that participation in sport in the absence of promoting physical competence, healthy body image, academic competence, and peer acceptance may not have a positive impact on female self-esteem later in life (Richman & Shaffer, 2000; Tracey & Erkut, 2002). Thus, it is reasonable to presume that the coach can likely play a role in increasing the positive outcomes of sport participation for female athletes by incorporating the aforementioned concepts into their sport practices.

Pedersen & Seidman (2004) predicted that coach support and coaching style likely impacts levels of engagement and mastery among female participants, which in turn mediates the esteem-enhancing benefits of sport participation. In order to investigate differences in preferred coaching behavior between male and female athletes, Sherman, Fuller, and Speed (2000) measured perceptions of coach behavior using the Leadership Scale for Sports among 312 male and female athletes. Results indicated that the only significant 'preference' differences were that female athletes preferred more democratic coaching behaviors and positive feedback compared

to male athletes. Similarly, Allen and Howe (1998) examined the influence of verbal and nonverbal coaching feedback and athlete ability on the adolescent female athletes' perceptions of competence and affective responses to their sport experience. Female adolescent hockey players (N=143) between 14 and 18 years old completed the questionnaire version of the Coaching Behavior Assessment System (CBAS) to assess perceptions of coaching behaviors and completed the athletic competence subscale from the Self-Perception Profile for Adolescents to assess perceptions of competence. Results revealed that perceptions of more frequent praise and instruction in response to good performance were related to higher perceptions of physical competence. Similarly, Smith, Fry, Ethington, and Li (2005) examined the extent that female high school athletes' perceptions of their coaches' behaviors predicted perceptions of the motivational climates. A sample of female of high school basketball players (N=143) was surveyed using the Perceived Motivational Climate in Sport Questionnaire-2 and the Coaching Feedback Questionnaire. Results illustrated that when athletes perceived that their coaches provided positive and encouraging feedback after both successful and unsuccessful performances they were more likely to perceive a mastery oriented climate, which has been linked to positive outcomes in previous literature (Coatsworth & Conroy, 2009; Gould et al., 2012; Holt et al., 2009). Across several studies that examine the influence of coach behavior on female athletes results indicate that more frequent positive coaching behavior (e.g., praise, information, encouragement, and corrective information, etc.) was related to higher degrees of satisfaction with the coach and their sport experience.

Black and Weiss (1992) examined the relationships among perceived coaching behaviors, perceptions of ability, and motivation in competitive age-group swimmers (Elementary = 10-11 years old, Middle = 12-14 years old, and High School = 15-18 years old). Results showed that

female swimmers who perceived that their coaches gave more praise and information following desirable and undesirable performances scored higher on levels of perceived success, perceived competence, challenge motivation, enjoyment, and effort, while male swimmers scored higher on perceived success, perceived competence, and challenge motivation. In addition, results showed that there was only a mild difference between the middle and older age groups perceptions of coaching behaviors and perceptions of ability and motivation. For the 12-14 group, athletes' who thought that their coaches gave more information following desirable performances scored higher on all self-perception and motivation variables, while athletes in the 15-18 year old group scored higher on all variables except perceived choice (Black & Weiss, 1992). Corroborating existing research, Coatsworth and Conroy (2006, 2007) found that age and gender moderated the effect of a psychosocial coach training program on the self-esteem of youth swimmers. A stronger effect for self-esteem was found for female athletes compared to male, and the intervention was also more effective for younger athletes (under 11-years-old), whose self-esteem relies more on concrete, direct (e.g., praise, attention and reinforcement) feedback given by adults. Similar to findings from Smoll et al. (1993), coaches who were perceived as giving more praise and information were most effective in changing female and younger athletes' self-perceptions of success, competence, self-esteem, enjoyment, as well as preferences for challenging activities. In sum, the nature and structure of the sport program and the behaviors of the coach play a crucial role in developmental outcomes across genders and age groups with positive feedback, democratic leadership, and support for a health body concept particularly important for female athletes.

Parental influence in sport. Research has shown that there is a relationship between parental attitude and behaviors and athletes' motivation, perceived competence, goal orientation,

prosocial behaviors, and enjoyment of sports (Anderson et al., 2003; Babkes & Weiss, 1999; Gould, et al., 2008; White, 1996). Parent feedback and perceived beliefs have been shown to affect how long a child stays involved in a sport, how the child perceives his or her abilities, and the enjoyment they receive from sport. For instance, Babkes and Weiss (1999), found that youth soccer players who perceived their mothers and fathers to have positive beliefs about their soccer competency, to give more positive responses to successful performances, and to put less pressure to perform, reported greater enjoyment, perceived competence, and motivation in their sport.

In addition, the outcome a parent emphasizes and reinforces, such as winning or improvement in technical skill, can effect how a child views success in sport and the motivational climate the child develops in relation to sport. White's (1996) study found that children who perceived that their parents emphasized a learning/enjoyment climate demonstrated a task orientation, while children who perceived that their parents emphasized a motivational climate (where success is related to low effort and winning) were more likely to exhibit an ego orientation. In the existing literature, task orientation has been linked to high levels of enjoyment in sport, value for fair play, social cooperation, and believing that success is linked to hard work and intrinsic interest in the sport, whereas ego orientation has been linked to maladaptive motivational patterns. Thus, these findings support the idea that in order to foster more positive sport experiences for their children parents should highlight personal improvement and effort as it relates to skill acquisition. Existing research also shows that parent support is related to increased enjoyment and decreased anxiety; however, parental pressure (i.e., expressing disappointment with performance; seeking financial benefits) is related to decreased enjoyment and burnout (Anderson et al., 2003). Given the relationship between enjoyment and motivation (increased enjoyment predicts increased motivation to participate) these results

suggest that parents who demonstrate more supportive behavior are likely to influence enjoyment and hence motivation in a positive way.

Although research is limited, a few studies show that coaches' beliefs about the influence of parents on life skill development through sport reflect existing evidence of the parental role in the literature. Coaches interviewed in Gould and colleagues (2008) study, for instance, felt that parents influenced their child's interpretation of the sport experience. More specifically, parents who overemphasized outcome (i.e., winning) rather than hard work, focused on a return for their investment, or demonstrated lack of emotional control (i.e., demanding and overbearing) were perceived as creating stress and reducing intrinsic motivation for the young athlete. However, coaches also held the optimistic stance that the parents were positive influences rather than problems, and viewed appropriate parent involvement as critical to the development of personal and athletic competence. Likewise, coaches in Gould et al. (2007) were aware of the positive and negatives of parental influence and they discussed enacting strategies to engineer a positive and productive parental context. Coaches in this study actively communicated with parents and encouraged parent input, rather than minimalizing parent contact. Although research regarding parental influence on their child's sport experience is not abundant, the above research does provide evidence that parents as another influential adult, impact their child's motivational orientation, enjoyment, and perceived competence in sport.

Transfer of Life Skills

In light of the fact that many young athletes do not go on to have professional careers in sports and the fact that mere participation in a sport is not sufficient for internalizing life skills, it is vital that youth are provided opportunities practice and apply the valuable skills learned during sport to other areas of their lives. Danish, Taylor, and Fazio (2003) delineated a number of

strategies (originally identified in Gass, 1985) that can enhance not only the initial development of life skills, but also the transfer of skills to other domains. In general, Danish and colleagues (2003) concluded that if life skill instruction was taught in isolation from the sport instruction, the life skills would likely be ignored or forgotten, however, if the life-skill instruction was fully integrated into the sport instruction, youth would have a hard time understanding how life skills could be used outside of the sport venue. Therefore, to promote optimal skill instruction and ensure the transfer of life skills, sport specific skill instruction and life lessons should be seamlessly integrated and equally balanced.

To achieve such a balance, researchers have outlined the following strategies to promote the internalization and transfer of life skills to other domains. It is recommended to create similarities between the environment of the activity and the environment where the transfer is to occur. For instance, coaches can focus on what life skills have made the athlete successful both on and off the court or field by recognizing his or her strength of character (e.g., determination, ability to overcome hardships and challenges), rather than physical skills or talent. Danish and colleagues (2003) suggested that teaching both mental and physical skills through explicit instruction (e.g., naming, describing, giving a rationale for use, etc.), modeling or demonstration, and frequent opportunities for practice with scaffolding and feedback would have the greatest impact on the durability of life skills across settings. Gould and Carson (2010) found that explicit discussions about transferring skills to other domains and using teachable moments in practice, that is explaining and providing athletes concrete examples of situations and contexts in which life skills can be transferred, were key to successful transfer. Burnelle et al. (2007) also concluded that the most important factor in developing an enduring skill, value, or attitude is

having the opportunity to practice, thereby gaining the competence and confidence to integrate the learned skills in other settings.

Furthermore, coaches can play a role in the transfer of skills by helping athletes develop a plan to practice the skill in other domains and having athletes report on their successes and failures in applying the skill outside of sports (Danish et al., 2003). Several sport based-life skill programs utilized community service activities as an opportunity to practice and maintain life skills and values learned through their sport experience in another context (Brunelle et al., 2007). Danish and colleagues (2003) also suggested providing opportunities to reflect on the learning experience, involving peers and significant others in the learning process, and providing follow-up experiences to reinforce life skill transfer. During the reflection process, mentors can assist youth in interpreting an experience in a way that highlights salient life lessons and helps the athletes develop the metacognitive skills (i.e., planning, monitoring, organizing) to help them navigate similar situations in the future (Larson, 2006). Furthermore, coaches who take advantage of opportunities to reflect and discuss successes and failures in applying skills in and out of the sport context likely facilitates an athletes' belief that their physical and psychological skills are of value in different settings. Thus, helping athletes recognize, utilize, and value the skills they learned in athletics as well as helping the athlete gain self-efficacy with regard to generalizing the skills across settings (Danish et al., 1993).

Although research has shown that beneficial psychosocial skills are acquired through sport, they are not automatically internalized and there are many barriers to teaching life skills within the sport domain that successfully transfer to other contexts. Therefore, teaching athletes how to transfer skills to non-sport settings has been identified as an imperative final step in the

developmental process. To date, however, there is a paucity of research in how to teach life skills in a competitive environment and promote successful transfer to other domains.

Conclusion

There is increasing interest in the potential for extracurricular activities to foster the development of life skills among adolescents, but the efficacy of sport programming with regard to creating positive developmental experiences has been questioned. Considerable evidence suggests, however, that the beneficial outcomes of participating in appropriately structured sport programs outweigh the potential for detrimental effects. Children and adolescents participate in sports during formative periods of their lives, thus a critical window of opportunity is available to foster the personal development of young athletes and to facilitate the development of skills that may generalize from sports to other areas of their lives. Coaches, as adult leaders in the sport context, play a crucial role in constructing a supportive environment and developing meaningful coach-athlete relationships that foster exposure to important developmental experiences that facilitate the development of life skills (Carson, 2010). As sports become more specialized at younger ages coaches need to be aware of how their behaviors and actions affect their athletes throughout different developmental stages. Unfortunately, many coaches, although well intentioned, lack the knowledge to create a supportive interpersonal climate.

Review of the existing literature suggests that although athletes' perceptions of coaching behaviors may ultimately influence participatory outcomes, several key variables likely mediate the relationship between athlete perception and developmental outcomes. Most importantly, research demonstrates that interactions with the coach that substantiate the coach-athlete relationship effect the athlete's perception of the overall sport experience and the coach's behaviors, rendering the coach's behaviors as effective or ineffective. Other variables include

the coach's interpersonal skills, autonomy supportive behaviors, coaching philosophy, motivational orientation, and methods of instruction. These behaviors play a significant role in athlete development; however, more research is needed to understand the specific strategies coaches utilize to facilitate positive developmental experiences and outcomes within a competitive sport context.

Purpose of the Current Study

Consistent with Holt and colleagues (2009) perspective, this study adopts the critical stance that sport participation does not automatically produce life skills; rather, sport provides social contexts and experiences within these contexts that facilitate the attainment of life skills. To date, there has been a considerable amount of research on the beneficial outcomes of participation in youth sports and there is emerging research investigating the contextual aspects within a sport setting that are responsible for positive outcomes. Although a handful of studies have examined coaching efficacy in non-competitive youth development programs, there is limited evidence of the processes that occur between the coach and the athlete within highly competitive sport contexts that facilitate positive developmental experiences. Moreover, the ability to transfer life skills to other settings is the most important distal outcome from participation in sport, yet little is known about how these skills transfer outside the sport setting.

There is a need for research to move beyond measuring outcomes and to begin focusing on what specific components and characteristics of a competitive sports context promote or inhibit specific outcomes. Investigating perceptions of coaching behavior are key to understanding an individual's sport experience and determining what mechanisms contribute to positive and negative outcomes (Smith & Smoll, 1997). Therefore, the purpose of this study is to explore the relationship between coaching behaviors and strategies and related patterns of

developmental experiences and life skill acquisition from the perspective of adolescent female athletes within a competitive sport context. In addition, this study seeks to examine if age impacts the relationship between perceived coaching behaviors and related developmental outcomes. This study also aims to identify emerging themes of coaching behaviors related to positive developmental experiences and generate a detailed exploration of strategies used to promote those experiences and transfer life skills beyond the sport context. Understanding coaching behavior as a mechanism that produces developmental outcomes will ultimately aid in the development of coaching curriculums and best practices with regard to facilitating positive outcomes in a variety of youth sport contexts.

Research Questions and Hypotheses

1. What is the relationship between perceived coaching behaviors and developmental experiences among adolescent female athletes in a competitive sport context?
 - a. Does age of the athlete impact the relationship between perceived coaching behaviors and developmental experiences among adolescent female athletes in a competitive sport context?
2. What profile of perceived coaching behaviors is related to patterns of developmental experiences among adolescent female athletes in a competitive sport context?

Hypothesis: Evidence from previous research (e.g., Gould et al., 2006; Gould et al., 2007; Holt et al., 2009; Jowett & Cockerill, 2003; Smoll et al., 1993) indicates that coaches play a crucial role in constructing a supportive environment that fosters exposure to developmental experiences and facilitates the development of life skills. Several key coaching behavior variables have been shown to predict positive outcomes for athletes such as coach's interpersonal skills, autonomy supportive behaviors, coaching philosophy, motivational orientation, and methods of instruction.

In addition, the literature on participatory outcomes for sport (e.g., Carson, 2010; Gould & Carson, 2010; Hansen et al., 2003; Holt et al., 2009) demonstrates positive outcomes including, increases in self-esteem, initiative related skills (i.e., leadership, responsibility, time management), social skills and teamwork. Given evidence from previous research, this study predicts that there will be a significant relationship between athletes' perceptions of coaching behavior and developmental experiences. In addition, this study predicts, similar to Gould and Carson's (2010) study, that athletes' who perceive that their coach teaches competitive strategies, mental preparation, goal setting, positive rapport, democratic behaviors, and teaching life skills will score higher on the following positive developmental experiences: initiative experiences, teamwork, prosocial norms, and linkages to the community and will score lower on negative experiences. Based on results from previous studies (e.g., Black & Weiss, 1992; Coatsworth & Conroy, 2006), this study predicts that there will be a difference in perceptions of coaching behavior and developmental experiences between younger and older adolescents.

3. What coaching philosophy and strategies do exemplar coaches describe they use to promote positive experiences and facilitate the development of life skills among female adolescent athletes?
4. What developmental experiences and life skills do coaches hope adolescent female athletes develop and transfer to non-sport settings from participating on their team?
5. What barriers and challenges do exemplar coaches perceive exist in promoting the development of life skills among female adolescent athletes and having those skills transfer beyond the sport context?

CHAPTER III: Research Methods

The present study used a mixed method sequential explanatory design to explore the relationship between athletes' perceptions of coaching behaviors and patterns of developmental experiences, and to describe the coaching strategies exemplar coaches use to promote positive developmental experiences. This study also seeks to identify desired participatory outcomes and to investigate barriers and challenges coaches face in helping athletes generalize life skills to contexts outside of sport. The first portion of the study included the collection and analysis of the quantitative data from self-report measures completed by current athletes participating in competitive sport programming. Athletes' perceptions of coaching behavior was measured with select subscales from the Coaching Behavior Scale for Sport (CBS-S) and two additional subscales, Democratic Behavior scale and Coaching Life Skill items. In addition, athletes rated the relevance of a variety of positive and negative developmental experiences and life skills developed through their sport experience with select subscales from a revised version of the Youth Experiences Survey-2 (YES-2). Analysis of the quantitative data sought to explore the nature of the relationship between perceived coaching behavior and developmental outcomes, and more specifically, what profile of perceived coaching behaviors was related to patterns of developmental experiences among younger and older adolescents.

In the second portion of the study, data gathered from the questionnaires was used to purposively select exemplar coaches from each age group (i.e., younger and older) for semi-structured interviews. Interviews explored emerging themes from the survey data by asking

coaches to explain and describe desired participatory outcomes for their players as well as strategies employed to foster positive developmental experiences. In addition, interviews expanded upon quantitative findings by exploring successes and barriers to promoting the transfer of life skills beyond the sport context. Analysis and discussion of quantitative and qualitative results aimed to explore the link between coach behavior and developmental outcomes and to thoroughly describe coaching strategies, as perceived by both adolescent athletes and select exemplar coaches. Overall, the goal was to better understand the complex relationship between coaching behaviors and strategies, developmental experiences, and transfer of life skills.

Sample

The program, Volleyball Club (pseudonym), was purposively selected based upon success in two areas: demonstration of competing and succeeding at a high level regionally and nationally (defined as having a history of winning the Region Championship, at least one first place finish at a national qualifying tournament, and receiving bids to compete in the Junior National Tournament), and exhibiting a commitment to creating a positive developmental context (defined as having goals that includes goals for personal development and the presence of PYD criteria as outlined by the National Research Council and Institute of Medicine (NRCIM)).

Volleyball Club met all criteria set forth by the investigator, demonstrating a commitment to both competition and positive youth development. Volleyball Club is a non-profit organization founded in 2002. Volleyball Club opened its own volleyball facility in 2006, the first of its kind in the state, and has expanded to include seven volleyball courts built on an injury preventative orthopedic subfloor, a classroom, and a weight training and conditioning area. In

2014 Volleyball Club had 27 competitive teams ranging from ages 11 and under to 18 and under and added its first Junior Boys team in its history. Over the course of its 13-year history, Volleyball Club teams have won over 22 Region Championships, two national qualifiers, and received over 36 bids to the Junior National Tournament.

Volleyball Club's commitment to physical as well as personal development is evident in their mission statement, "educating the whole person through excellence in the sport of volleyball." In addition, Volleyball Club explicitly promotes a view of the court as a classroom, striving to teach character, discipline, respect, responsibility, accountability, commitment, leadership, work ethic, teamwork, courage, integrity, communication, cooperation, the importance of sacrifice and sportsmanship. Their mission also includes a pledge to create a safe and positive learning environment and a visible contribution to the betterment of the community through philanthropic work and participation in civic activities (e.g., in 2011 Volleyball Club partnered with Bridge II Sports to bring adaptive volleyball to those with physical differences). Volleyball Club's commitment to these stated goals was confirmed during pre-study observations during the 2014 spring season. For instance, each team was observed to adopt a core value for the season and was expected to demonstrate (on and off the court) their commitment to this value. The gym space was clear of physical hazards, provided proper equipment for teaching technical and tactical skills, and included a "classroom" space for player to complete homework or coaches to "teach" lessons. As evidence of philanthropic work, Volleyball Club members' mentored younger players, coached local special Olympic teams, hosted and participated in an adaptive sport league, and volunteered for community events (e.g., Valor Games). A total of 14 teams and six coaches participated in the data collection process that began in May of 2014 and continued through October of 2014.

Participants

Athletes. The sample for the survey portion of the study included 126 female athletes aged 13-18 ($M= 15.47$). The participants were in grades 6-12 and the largest proportion of participants, approximately 69 percent, was in the 8th, 9th, and 10th grades at the time of data collection. 80 percent of the participants identified as Caucasian, 11 percent identified as African American, less than one percent identified as Hispanic, and athletes who indicated that they identified with more than one ethnicity were collapsed into a single category, 'Mixed,' which made up six percent of the sample. On average, the participants had played 2.68 seasons of volleyball with Volleyball Club and estimated spending approximately 7.23 hours a week in volleyball related activities at Volleyball Club (e.g., practice, weight training and conditioning, private lessons, etc.). With regard to parents' educational status (a proxy for social economic status), approximately 46 percent of fathers and 37 percent of mothers had completed a Graduate or Advanced degree, 38 percent of fathers and 46 percent of mothers had completed four years of college, and four percent of fathers and eight percent of mothers had completed one-to-three years of college. See Table D1 in Appendix D for athlete demographic data.

Coaches. Of the six coaches selected, two were female and four were male (selection criteria is outlined in the "recruitment" section). The average age of the coaches who participated was 37.16. All six coaches identified as Caucasian, five coaches had completed four years of college, and one coach had completed a Graduate or Advanced degree. The selected coaches had an average of 16.3 years of experience coaching volleyball, completed 6.8 seasons coaching at Volleyball Club, and had been head coaches at Volleyball Club for an average of 5.1 years. In addition, each coach had a winning record for the current 2014 season and the

combined average winning percentage for all six teams was 67.23 percent. See Table D2 in Appendix D for coach demographic data.

Procedures

Data were collected during the summer of 2014 near the end of Volleyball Club's season. Details regarding recruitment, consent and assent, and data collection are outlined in the following sections.

Recruitment. Convenience and purposeful sampling of the participants was utilized in order to obtain a pool of participants who were effective candidates for addressing the research questions. The process of recruiting these participants and the qualities on which the sampling decision were made are outlined in the following section.

To provide a source of information regarding coaching behaviors and developmental experiences through participation in a season at Volleyball Club, current athletes were asked to complete several paper and pencil surveys. The criteria for selection included (1) having participated on a Volleyball Club team during the 2014 season, (2) being between the ages of 13 and 18-years-old, and (3) having given consent/assent or gained parental consent to participate and returned the necessary consent/assent forms (see Appendix B). Athletes were recruited through a brief presentation by the primary investigator at Volleyball Club and a letter (see Appendix A) that was sent home, asking for volunteers and permission for the athletes' participation.

Purposive sampling was used to select six exemplar head coaches (three from each age group, younger and older) to be interviewed in order to answer the qualitative research questions posed by the study. Coaches were selected based on the following criteria (1) having coached at Volleyball Club for at least one season, (2) currently be in a head coaching position of teams

within the younger (age 13-15) and older adolescent age divisions (16-18), (3) demonstrate coaching behavior profiles associated with positive developmental outcomes. Purposive sampling was employed in order to connect the quantitative phase with the qualitative phase and to obtain a pool of individuals who were similar on defining characteristics of exemplar coaches that make them optimal candidates for addressing the research question. Exemplar coaches were defined as coaches who were reported to best demonstrate perceived coaching behavior profiles associated with the most positive developmental outcomes.

More specifically, athletes' responses on the YES-2 and perceived coaching behavior measures were grouped or matched to their respective coach and then scores were aggregated to create a profile of perceived coaching behaviors and developmental experiences from the perception of the athlete. In other words, the investigator created a team "perspective" of each of the 14 eligible coaches by calculating the average of all players' scores for that coach on each subscale. Coaches were then ranked (1 through 7 based on their profile and the top three coaches in each group (younger and older adolescent) were selected, for a total of six exemplar coaches (see Figure D1 in Appendix D for selection process flow chart).

Consent, assent, and data collection. In order to protect the rights and privacy of the participants involved in this research project, several measures were taken to ensure that the individuals were informed about their involvement and responsibilities as participants. Before data collection took place, the project was submitted to the University of North Carolina at Chapel Hill Institutional Review Board for approval. Following approval, the primary investigator conducted a brief presentation at Volleyball Club, handed out recruitment letters, and sent home an informed consent/assent forms. Participants each read and signed an informed consent form or assent form before participating in any portion of the study and those under 18

were asked to gain parental consent (see appendix B for consent forms). The informed consent/assent explained the purpose of the study, the benefits and risks of participation, the responsibilities of participants, the information regarding confidentiality, and the rights of the individuals to terminate participation at any time without penalty. In addition, the participants were informed that their identities and the information they divulged would be kept confidential and secure.

Once all consent and assent forms were completed and returned to the primary investigator via a drop box located at the Volleyball Club facility, the investigator returned to Volleyball Club to distribute survey packets to the participants. The data were collected on two days during regular practice sessions. During practice, teams rotated through the classroom to complete the survey packets one team at a time. Instructions for the completion of the survey packets were verbally explained, any questions were addressed, and the completion of the survey packet lasted between 20 and 30 minutes. Packets for athletes included instruments that assessed perceptions of coaching behaviors (CBS-S, Democratic Behavior, Coaching Life Skills items), experiences had while participating on a Volleyball Club team (YES-2 revised), and a athlete demographic survey (Demographic Questionnaire), which was administered last. A more detailed description of each instrument is provided in the Measures section, and in addition, copies of the instruments can be found in Appendix C.

Coaches were contacted via email upon their selection for the interviews. The coaches who acquiesced to the interview were sent a formal letter via email delineating the purpose of the interviews and asked coaches to indicate preferred times and locations for the interviews. Before the interview, coaches received an outline of the basic questions asked in order to promote thoughtful answers. Coaches were informed of their rights and responsibilities as participants

and asked to sign an informed consent form, including permission to be audio recorded prior to the start of the interview.

Following consent, interviews lasting approximately 55-95 minutes were conducted at the time and location convenient to the coach. Interviews began by asking the coach about his or her own background in the sport, history of coaching the sport, and favorite coaching moments. After rapport was established, the researcher asked the coaches to describe their coaching philosophy with regard to the importance they place on developing life skills, developing physical skills, winning, or having fun. Coaches were then asked to identify desired developmental outcomes including life skills they hoped to foster in their players through the sport of volleyball. If the investigator felt it necessary to establish a more basic understanding of the key concepts under investigation, coaches were read Danish and colleagues (1996) definition of life skills or given examples of life skills from the literature (e.g., initiative, responsibility, emotion regulation, etc.). Next, coaches were asked about the processes or strategies they utilize to accomplish previously stated outcomes. Finally, coaches were asked about what strategies they use to promote the transfer these life skills to areas outside of the sport, and about any barriers they face in the development or transfer of these skills. Please see Appendix C for the interview guide. At the conclusion of the interview coaches were asked to complete a demographic survey (see Appendix C). Three coaches were contacted for follow up questions via email. In an attempt to ensure validity of the interpretations that result from the investigator's analysis and categorization of interview themes, member checks were conducted as need.

Measures

Demographic surveys. The demographic survey for coaches consisted of a set of questions that ask about general information and coaching experience, including number of years coaching, level, position, educational status, formal coaching training received, and certifications acquired. The demographic survey for athletes consisted of a set of questions about age, ethnicity, and grade, parents' educational attainment, as well as the number of participation years in Volleyball Club, whether the sport participant considered volleyball their primary sport, and the participants' team affiliation for the current season. Athletes remained anonymous by name, however, they were asked to identify their current team which allowed the researcher to link athlete responses to specific coaches. Please see Appendix C for copies of the demographic surveys.

Youth Experiences Survey 2.0 (YES-2). The YES-2 (Hansen & Larson, 2005) was designed to measure the types of positive and negative developmental experiences youth may encounter while participating in a range of extracurricular activities including sports. The YES-2 is a 70-item self-report questionnaire comprised of seven major scales (six positive domains and one negative domain) and 22 subscales that fall within the major scales. The YES-2 scales that focus primarily on positive developmental experiences include: Identity Exploration (exploration, reflection); Initiative Experiences (goal setting, effort, problem solving, time management); Basic Skill (emotion regulation, cognitive skill, physical skill); Positive Relationships (diverse peer relationships, prosocial norms); Teamwork and Social Skills (group process skills, feedback, leadership and responsibility); Adult Networks and Social Capital (integration with family, linkages to community, linkages to work and college). In addition, the YES-2 has one scale focused on negative developmental experiences: Negative Experiences

(stress, negative influences, social exclusion, negative group dynamics, inappropriate adult behavior). Research conducted with a representative sample of 2,280 adolescents found the YES-2 to be valid and reliable with Cronbach alpha values ranging from 0.75 to 0.94 for all scales (Hansen & Larson, 2005, 2007). Work by Hansen and colleagues (e.g., Hansen & Larson, 2007; Hansen et al., 2003; Larson et al., 2006), Strachan, Côté, and Deakin (2009), and Gould et al. (2010) suggest that the YES 2.0 is a reliable and valid instrument to investigate experiences in sport.

The participants completed select subscales from the YES-2 with a revised response set (as recommended by the publisher) to inventory athletes' developmental experiences while participating on a Volleyball Club team in spring of 2014. Participants were instructed to answer the items regarding their experience at Volleyball Club by rating to what degree they had experiences in the spring 2014 season. Items pertaining to "Cognitive Skill" developmental experiences including "academic skills", "skills for finding information", and "computer/internet skills" were removed because of their perceived irrelevance to typical sport experiences. The "Basic Skill" scale was retained with the four "Emotional Regulation" questions, the "communication skills," question and the "athletic or physical skills" question. The item pertaining to opening up job opportunities in the "Linkages to Work and College" scale was removed because of perceived irrelevance to the age of the population. Additionally, items that could be perceived as controversial or potentially intrusive were not included because of the inability to follow up on those concerns. Items removed included all items on the "Negative Group Dynamics" and "Inappropriate Adult Behavior" scales and the items, "youth in this activity got me into drinking alcohol or using drugs" on the "Negative Peer Influences" scale.

In order to address challenges presented by the original 4-point scale (1= Yes, definitely; 4 =Not at all) the response scale was changed to a 7-point scale (1= Never; 7= Every single time), as recommended by the publisher, with the intent of providing the participant a more precise frequency on which to rate the degree to which they felt a given experience was characteristic of their sport involvement. Please see Appendix C for the YES-2 revised.

Coaching Behavior Scale for Sport (CBS-S). The CBS-S (Côté, Yardley, Hay, Sedgwick, & Baker, 1999) is a 44-item self-report questionnaire that assesses respondents' perceptions of coaches' roles in athletes' development of skills, competencies, and relationships. There are a total of seven scales including Physical Training & Planning, Technical Skills, Competition Strategies, Mental Preparation, Goal Setting, Personal Rapport, and Negative Personal Rapport. All constructs, represented by the seven scales, demonstrate good external validity and high internal consistency in previous studies with alpha coefficients above .85. In addition, the items capture a wide range of coaching behaviors exhibited across a variety of sports, demonstrating adequate variability and applicability to a variety of sport contexts (Mallet & Côté, 2006; Gould et al., 2010). Items that could be perceived as controversial or potentially intrusive were not included because of the inability to follow up on those concerns. Items removed included: "intimidates me physically" and "uses power to manipulate me." Each item was answered using a 7-point scale ranging from 1 (Never) to 7 (Always). Revisions were made to the instructions, specifically, participants were instructed to answer the items according to the experiences they had with their current head coach at Volleyball Club by rating to what degree they experienced each coaching behavior. Please see Appendix C for the adapted version of the CBS-S.

Democratic Behavior. The Democratic behavior subscale from the Leadership Scale for Sport (LSS) will be adapted and used to assess the extent to which the coach permits participation by athletes in decision-making (Chelladuri & Saleh, 1980). The original LSS has stable factor structure with five factors: Training and Instruction, Autocratic Behavior, Democratic Behavior, Social Support, and Positive Feedback. Previous literature has demonstrated that female athletes prefer a democratic style, therefore the nine items from the Democratic Behavior subscale were adapted for the purpose of this study. The reliability for this subscale in previous studies was adequate, $\alpha = .82$. Participants were instructed to answer the items according to the experiences they had with their current head coach at Volleyball Club by rating to what degree they experienced each coaching behavior. Please see Appendix C for the Leadership Behavior scale.

Coaching Life Skills items. Additional items were administered to address other potential coaching factors related to the facilitation of positive developmental experiences and life skill development. This set of questions was derived from the results of several qualitative studies (Gould et al., 2007, Gould et al., 2010; Gould et al., 2012; Hansen & Witt, 2012) investigating how coaches fostered the development of life skills among athletes. These items specifically addressed behaviors and actions identified in the literature as critical, such as coaches emphasizing putting the team before self, keeping track of how athletes are doing in school, emphasizing hard work and effort, allowing the athletes to have fun, modeling good sportsmanship, and talking about how sport lessons relate to life or teaching life lessons. Please see Appendix C for the Coaching Life Skills items. Participants were asked to rate to what degree they experienced each coaching behavior with their current head coach and each item was answered using a 7-point scale, ranging from 1 (never) to 7 (always). The integrity of these

items were assessed and revised with a small group of former female athletes before data collection.

Interviews. Semi-structured, one-on-one interviews were conducted with each exemplar head coach. The interviews were audio recorded and lasted approximately 55 - 95 minutes each. A semi-structured interview format was chosen because this approach creates consistency between interviews through the use of a standardized set of questions while allowing the interviewer to explore the interviewees experiences further with follow up questions and probes. The researcher developed an open-ended interview guide prior to analysis of data that addressed major areas of the study: desired outcomes and developmental experiences, coaching philosophy, coaching behaviors and strategies, and barriers or challenges. Open-ended questions aided in the understanding how participants make meaning of their own world, experiences, and cognitive processes. As a researcher cognizant of the importance of establishing rapport and eliciting information simultaneously during an interview, the researcher utilized a conversational mode to provide the opportunity for two-way interactions. Please see Appendix C for a copy of the interview guide.

The Investigator

The interpretive framework adopted by the investigator was constructivist. This interpretive lens dictates that individuals develop subjective meanings of their experiences; therefore, the researcher relied on the participants' view of the situation to construct a view of their reality and phenomena. Although the investigator followed a semi-structured interview format, which provided questions to guide the discussion, the investigator (to the best of her ability) remained neutral and objective in order to reduce the probability of influencing the interviewee's responses. The interview format allowed for the conversation to be partially

driven by the interviewee, while questions were designed to be open ended and elicit a breadth of responses. In addition, in analyzing the interview the data, the goal was to achieve an understanding and meaning of a phenomenon (i.e., perceived coaching behavior) through the reconstruction of participants' subjective views and interpretations of their relevant experiences. As the investigator I positioned myself within the research acknowledging how my interpretation flows from my own background and experiences. Meanwhile, I engaged in a collaborative effort with participants in order to co-construct interpretations and conclusions that most accurately reflect the participants' reality. Under this constructivist perspective, a phenomenological approach to inquiry was used with the aim of describing a composite of the essence of the experience (what and how they experienced) of the phenomenon of coaching behavior and developmental experiences (Creswell, 2013).

I am deeply invested in the search for best practices for youth sport coaches in regard to fostering the development of life skills among today's youth. My intimate involvement in this field as a former student-athlete, coach, and now researcher has led me to explore the experiences and psychosocial development of athletes as it relates to coaching behavior. I have been involved with the participating organization as a coach for nearly five years and my involvement with the organization creates both advantages (e.g., prolonged engagement, trustworthiness) and disadvantages (e.g., researcher bias). I employed several techniques recommended by Glesne (2011) to ensure trustworthiness throughout the data collection process and validity in my analysis. Reflection and exploration of my own subjectivity was conducted throughout the project through the use of a reflexive journal. In addition, peer review, debriefing, and member checking aided in ensured accurate representation of ideas and interpretations. In order to gain insight about the targeted phenomenon from several vantage

points, several participant groups including athletes and coaches, and several methods of data collection were employed. Furthermore, a mixed methods design that utilizes both quantitative and qualitative methods to measure overlapping, but different facets of a phenomenon (i.e., perceptions of coaching behavior and coaching strategies) aided in establishing believability in the data collected as patterns emerged from the various sources and multiple methods used.

Data Analysis

Given the multivariate nature of the data collected, multivariate statistical procedures were employed in this study to explore the internal structure of the data in a way that best explains the variance in the data. RStudio (Version 0.98.978) was used to conduct descriptive and inferential statistical procedures. Two comparable exploratory methods of analysis, principal component analysis and canonical correlation analysis were conducted, and regression models were run in order to examine the relationship between predictor and response variables. Following the collection of qualitative data in the form of interviews, qualitative data analysis was employed using computer assisted qualitative analysis software, MAXQDA11. An eclectic coding approach was utilized to code the data, and codes were then organized into major themes relevant to the research questions in a cross-case manner.

Quantitative data analysis strategy. The investigator used Xcel software to score questionnaires manually. Then data scores were imported into RStudio (Version 0.98.978) and descriptive statistics were calculated. The data were visually screened for normality, outliers, and linearity (histograms, scatterplots), and screened for missing values. Participants with missing values were subsequently removed from the data set. First, means for the scales of the YES-2, CBS-S, Democratic Behavior, and Coaching Life Skill items were examined in order to evaluate if developmental experiences and coaching behaviors delineated on the scales were

characteristic of Volleyball Club. For instance, if the majority of the means fell on the higher end of the score range (with the exception of the negative experiences subscale of the YES-2), it likely signified that, as a group, athletes' felt that the experiences and coaching behaviors captured by the instruments were characteristic of their sport experience at Volleyball Club.

Athlete's perceptions of their coach's behaviors and experiential outcomes in the context of a team are not independent observations and represent a nested data structure that can vary within and between coaches. The correlated nature of nested data (i.e., individual athletes were nested within teams) can result in an increase in the standard errors consequently rendering significance tests invalid. Thus, to account for the variance, an intraclass correlation analysis (ICC) was run to estimate proportion of the total variance in the variable that exists between teams. The ICC was used to signify the extent to which there is similarity within groups (i.e., teams).

The following research questions requiring multivariate statistical procedures (i.e., many predictor and response variables, all correlated with one another to varying degrees) were investigated: (1.) What is the relationship between perceived coaching behaviors and developmental experiences among adolescent female athletes in a competitive sport context? (1a.) Does age of the athlete impact the relationship between perceived coaching behaviors and developmental experiences among adolescent female athletes in a competitive sport context? (2.) What profile of perceived coaching behaviors is related to patterns of developmental experiences among adolescent female athletes in a competitive sport context?

Two variable sets were utilized throughout the following statistical procedures to measure the constructs of developmental experiences (as measured by the YES-2) and coaching

behaviors (as measured by the CBS-S, Democratic Behavior scale, and Coaching Life Skill items).

1. Coaching behavior variable set (predictor variables): Technical Skills, Competition Strategies, Mental Preparation, Goal Setting, Personal Rapport, Negative Personal Rapport, Democratic Behavior, and Coaching Life Skill.
2. Developmental experiences variable set (response variables): Identity Experiences, Initiative Experiences, Emotion Regulation, Positive Relationships, Team Work and Social Skills, Adult Networks and Social Capital, and Negative Experiences.

First, a principal component analysis (PCA) was conducted on each set of variables (coaching behaviors and developmental outcomes) as a way to depict the structure of the data as completely as possible by using as few variables as possible. The purpose of PCA was to summarize patterns of correlations among observed variables and to reduce the large number of observed variables within each variable set to a few dimensions or components. The proportion of variance, the scree test, and interpretability of variables (e.g., variables that load on a component share a conceptual meaning) were criterion used to determine the number of components to retain. Following dimension reduction, interpretation of the significant dimensions or components depended on that meaning of the particular combination of observed variables that correlated highly with each component. Finally, regression models comparing the principal component scores for perceived coach behavior to the principal component scores for developmental experiences were run in order to investigate if a significant relationship existed between the two variable sets. Component scores are the linear composite of the weighted observed variables for that component (Jolliffe, 2002).

In order to test whether age impacted perceptions of coaches' behavior and developmental experiences, a regression model was run comparing the PCA principal components for the predictor variable set (coach behavior) to the principal components for the response variable set (developmental experience) with age as a factor. In order to conduct this developmental analysis, the sample was split into two developmental groups younger (age 13-15) and older adolescents (age 16-18) on Volleyball Club's own division of age groups (i.e., teams with ages 16-18 practice together and teams with ages 13-15 together). In addition, these groupings allowed for approximately equal sample sizes and maintained a sample size that yielded sufficient power at the .05 level.

Canonical correlation analysis (CCA) was also conducted to corroborate PCA findings and further identify the optimum structure of each variable set that maximized the relationship between student athletes' perceptions of coaching behaviors and positive and negative developmental experiences among all adolescents in the sample. Prior to analysis, the variables were tested for multivariate normality, linear relationships, and sufficient sample size (i.e., power). Canonical loadings and standardized weights were used to describe the nature of the relationship between the two sets of variables, and to identify the pattern of perceived coaching behaviors related to the pattern of perceptions of developmental experiences (Tabachnick & Fidell, 2001).

Qualitative data analysis strategy. The primary investigator audiotaped each interview and all data obtained through interviews were transcribed verbatim. Following transcription, the first step was to organize and clean the data files, and import them into the MAXQDA11 data analysis software. In order to enhance familiarity with the data and develop a more holistic understanding of the coaches and his or her thoughts and experiences, the transcripts were read

several times and paired with the researcher's notes and quantitative data results (Yin, 2011). The investigator, who was trained in qualitative methodology and data analysis through academic coursework and previous experiences working on interview research as a research assistant, conducted a qualitative analysis utilizing both deductive and inductive approaches (Thomas, 2006). Qualitative codes were assigned, organized, categorized, and assembled into code matrices and visual arrays for pattern detection using MAXQDA11.

In the first coding cycle, the coder applied an eclectic combination of structural, descriptive, in vivo, and provisional coding to the qualitative data (Saldaña, 2012). Structural coding (applying content-based phrase representing a topic of inquiry to a segment of data that related to the specific research questions used to frame the interview) was used to create global categories based on research questions for the interview. Descriptive, in vivo (using words or short phrases from the participant's own language in the data), and provisional (researcher-generated codes based on previous research) coding classified data into approximately 20-30 codes (Saldaña, 2012). Once the investigator completed the first coding cycle, a second coder was given the evaluation objectives and the initial codes developed a definition and example of each. The second coder was then given a sample of the raw text (previously coded by the initial coder) and asked to code the data, and discrepancies were discussed. By checking the extent to which the second coder allocated the same text segments to the initial codes, the investigator was able to ensure clarity of the codes. Subsequently, pattern coding was used in the second coding cycle to create category labels that identified similarly coded data across cases, which informed the development of major themes within each global category. The goal of this process was to create a small number of over arching themes through which to view study findings and understand the underlying phenomena (Thomas, 2006; Yin, 2011). Results from the analysis are

presented in a thematic manner (i.e., global categories, higher-order themes, subthemes). The results are presented in three major sections, organized based on the global categories from the study's qualitative research questions: (3.) What coaching philosophy and strategies do exemplar coaches describe they use to promote positive experiences and facilitate the development of life skills among female adolescent athletes? (4.) What developmental experiences and life skills do coaches hope adolescent female athletes develop and transfer to non-sport settings from participating on their team? (5.) What barriers and challenges do exemplar coaches perceive exist in promoting the development of life skills among female adolescent athletes and having those skills transfer beyond the sport context? Within each global category the higher order themes and subthemes are presented. Themes were formed inductively from previous research presented in the literature review (e.g., Gould et al., 2007) and the scales of the YES-2, and deductively from the second cycle of coding interview data. Overall, the narrative is organized in a cross-person manner such that no participants voice is presented in depth, yet their perceptions and opinions on specific topics were preserved. Thus, the goal was to draw attention to topics and themes, rather than the individual people (Yin, 2011).

Figure 1. Mixed Methods Sequential Explanatory Design Procedures

Phase	Procedure	Product
QUANTITATIVE Data Collection ↓	<ul style="list-style-type: none"> • Paper and pencil surveys (N= 124): demographic survey, YES-2, CBS-S, Democratic, Life Skills 	<ul style="list-style-type: none"> • Numeric data
QUANTITATIVE Data Analysis ↓	<ul style="list-style-type: none"> • Data screening • Means, intraclass correlation analysis • Principal components analysis, Regression, Canonical correlation analysis (RStudio Version 0.98.978) 	<ul style="list-style-type: none"> • Descriptive statistics • Intraclass correlation coefficient • Canonical coefficients, loadings, standardized weights, redundancy coefficients
Connecting Quantitative and Qualitative Phases ↓	<ul style="list-style-type: none"> • Purposefully selecting head coaches (n= 6) based on student athlete responses to surveys 	<ul style="list-style-type: none"> • Sample of six exemplar coaches
QUALITATIVE Data Collection ↓	<ul style="list-style-type: none"> • Individual in-person semi-structured interviews (55-95 minutes) 	<ul style="list-style-type: none"> • Text data (interview transcripts and notes)
QUALITATIVE Data Analysis ↓	<ul style="list-style-type: none"> • Qualitative analysis • Inductive and deductive coding • MAXQDA11 	<ul style="list-style-type: none"> • Visual model of codes and themes • Horizontal thematic discussion
Integration of the Quantitative and Qualitative Results	<ul style="list-style-type: none"> • Interpretation and explanation of the quantitative and qualitative results 	<ul style="list-style-type: none"> • Discussion • Implications • Future research

Figure 1. Summary of mixed methods sequential explanatory design procedures. Adapted from Ivankova, Creswell, and Stick (2006)

CHAPTER IV: Results

Quantitative Results

The first portion of the study included the collection and analysis of the quantitative data from self-report measures completed by athletes currently participating on a team at Volleyball Club. Athletes' perceptions of coaching behavior was measured with select subscales from the Coaching Behavior Scale for Sport (CBS-S) and two additional subscales, Democratic Behavior scale and Coaching Life Skill items. In addition, athletes rated the relevance of a variety of positive and negative developmental experiences and life skills developed through the sport experience with select subscales from a revised version of the Youth Experiences Survey-2 (YES-2). The internal consistency, Cronbach's alpha, was estimated for each instrument revealing adequate reliability (CBS-S $\alpha = 0.949$, Democratic Behavior $\alpha = 0.847$, Coaching Life Skill items $\alpha = 0.753$, YES-2 $\alpha = 0.920$). Multivariate analyses of the quantitative data sought to explore the relationship between coaching behaviors and developmental outcomes, and to identify what profile of perceived coaching behaviors was related to patterns of developmental experiences among younger and older adolescents.

Descriptive analyses were conducted on the data using RStudio (Version 0.98.978). The data were screened for normality, outliers, and missing values. Visual screening revealed a relatively normal distribution (see Figure D2 in Appendix D), however there is no requirement that the variables be normally distributed when using canonical correlation descriptively (Tabachnick & Fidell, 2001). Two participants had missing scores on one or more variables, thus those individuals were omitted from the analysis. After completing the listwise deletion, the

total sample size used for analysis was N = 124. A power analysis (Alpha .05, effect = .3, power = .926) indicated that the sample size is sufficient enough to indicate whether there is a strong possibility that effects that actually exist have a chance of producing statistical significance. The means and standard deviation for the coaches' behavior (predictor) variables and developmental experiences (response) variables are reported in Table 1.

Table 1

Mean and Standard Deviation for Predictor and Response Variables

Variable	Mean	Standard Deviation
Coach Behavior Variable Set		
Technical Skills	5.01	1.44
Mental Skills	4.54	1.66
Goal Setting	4.10	1.67
Competition Strategies	5.29	1.38
Personal Rapport	5.03	1.72
Negative Personal Rapport	2.79	1.38
Coach Life Skills	5.27	1.05
Democratic Behavior	3.08	0.76
Developmental Experience Variable Set		
Identity Experiences	5.26	1.04
Initiative Experiences	5.54	0.89
Emotion Regulation	5.11	1.27
Positive relationship	5.11	1.27
Teamwork and Social Skills	5.83	0.86
Adult Network and Social Capital	5.44	1.09
Negative Experience	2.49	0.98

An examination of the descriptive statistics and distribution of data (see Figure D3 and Figure D4 in Appendix D) reveals that the majority of the means for the various scales fell on the higher end of the score range. This signifies that the athletes, as a whole, felt that the coaching behaviors and developmental experiences assessed by the measures given (e.g., YES-2, CBS-S, etc.) were characteristic of their experience at Volleyball Club during the 2014 spring season. It should be noted that the negative experiences scale of the YES-2 and the negative personal rapport scale of the CBS-S had mean scores that were below the median point (3.5) on the

possible scale range (1-7). Given that these scales are negative, the scores suggest most participants had relatively positive experiences at Volleyball Club and perceived interactions with their coaches as positive. Examination of the means of the CBS-S, Coaching Life Skill items, and Democratic Behavior scale measure, scores reveal that competition training, positive rapport, technical skill instruction, and coaching life skills were the coaching behaviors perceived as occurring with the most frequency. Examination of the means of the YES-2 higher-order subscale scores reveals that the developmental experiences that occurred with the most frequency according to the athletes include initiative experiences (e.g., effort, giving and receiving feedback, and leadership skills, etc.), establishing adult networks and gaining social capital (i.e., college preparation), and experiences with teamwork and social skills (i.e., group processing skills).

The distribution of predictor variables and response variables was examined using scatterplots comparing each different coaching behavior variable and comparing each developmental experience variable (see Figure D3 and Figure D4 in Appendix D). Visual screens of these scatterplots indicated positive linear relationships within each set of variables. A look at the scatterplots and corresponding correlations suggests that coaching behavior variables are strongly correlated with one another, and generally positively correlated. In addition, the distribution of scores were clustered to the right, indicating that the majority of participants rated coaching behavior, as measured by the CBS-S, Life Skills, and Democratic Behavior scale, as happening with more frequency. A similar relationship was found among the developmental experiences variables. A look at the scatterplots and corresponding correlations for response variable showed that developmental experiences were positively correlated with each other and were generally perceived to happen with more frequency.

Intraclass correlation. The 124 athletes that participated in this study were part of 14 teams. The size of each team was approximately 10 members. Some individuals on the 13 and under team were excluded from this sample due exclusionary age criteria and some members on the 18 and under team were absent on the day of data collection because they started summer session classes at their respective universities. The majority of the teams were homogenous with regard to race/ethnicity and parents educational status (See Table D1 in Appendix D). The intraclass correlation (ICC) was used to estimate the proportion of the total variance in the variable that exists between groups (i.e., teams), signifying the extent to which there is similarity within groups. The ICCs for each team, for each variable, are reported in Table 2.

Table 2

Summary of Intraclass Correlation Analyses

Coaching Behavior Variable Set	Team ICC	Developmental Experiences Variable Set	Team ICC
Technical Skills	0.39	Identity Experiences	0.13
Mental Skills	0.31	Initiative Experiences	0.24
Goal Setting	0.45	Emotion Regulation	0.09
Competition Strategies	0.36	Positive Relationship	0.10
Personal Rapport	0.44	Teamwork and Social Skills	0.11
Negative Personal Rapport	0.38	Adult Networks and Social Capitol	0.00
		Negative Experience	0.02
Coaching Life Skills	0.48		
Democratic Behavior	0.37		

Table 2 contains the ICC (extent to which is there similarity within groups) for each variable, for team-level variance. Between 30 and 48 percent of the variance in the coaching behavior variables was associated with teams, while smaller proportions of variance, between 0 and 23 percent of the variance in the developmental experiences variables, was associated with teams. These findings reveal more similarity within teams and larger variance between teams with regard to perceptions of coaching behavior than developmental experiences. The

significant between team variance for the coaching behavior variables indicates that the behavior of each coach likely impacts each team differently resulting in high between team variance, however, the behavior of each coach does not have a unique impact on the 10 individuals within a team resulting in low within team variance.

Given the high ICC for the coaching behavior variables, the data violate the assumption of independence of observations, therefore, the explanatory power of subsequent statistical tests will likely be reduced and the effective sample size is diminished (i.e., each observation contain less unique information). The standard errors that are normally reported with an analysis assume that each observation is independent of all other observations in the data set, therefore, high ICC usually results in an underestimation of the standard errors of the estimates, rendering significance tests invalid. Thus, the analyses that follow should be interpreted with caution.

Principal components analysis. Data screening (i.e., scatter plots) revealed strong correlations between the different possible coaches' behavior variables and the different possible developmental experience variables, therefore, the goal was to reduce the two sets of variables to a few principal components, thus revealing the underlying structure of the data. Principal Components Analysis (PCA) was conducted for each variable set. The proportion of variance, the scree test, and interpretability of variables (e.g., variables that load on a component share a conceptual meaning) were criterion used to determine the number of components to retain. For the coaches' behavior variables (predictors), approximately 69 percent of the variation of factors was explained by the first component (Proportion of Variance = 0.689), while less than 10 percent of the variation was explained by the second, or third components. This evidence suggests, that only the first principal component is significant (i.e., captures the greatest variance in the data set) for the coaching behavior variable set (see scree plot for predictors in Figure 2).

Thus, the first principal component is utilized in further analyses, while the second and third components do not warrant further exploration. For the developmental experiences (responses), approximately 53 percent of the variation of factors was explained by the first component (Proportion of Variance = 0.526), while component two explains only 15 percent, and component three explains only 11 percent. Thus, for the response variable set evidence suggests that the first principal component is significant and will be retained for further interpretation (see scree plot for response in Figure 2). The scree plots for coaching behavior and developmental variable sets in Figure 2 confirm the significance of the first principal components within each variable set.

Figure 2. Scree Plots for Predictor Variable Set and Response Variable Set

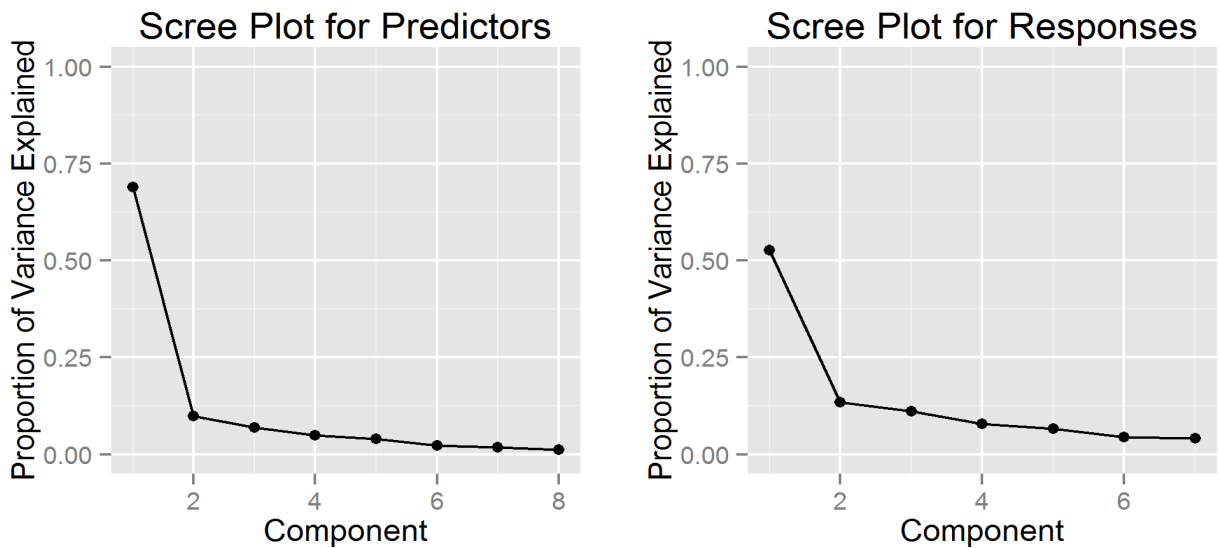


Figure 2. Scree plots for predictor variable set (Coaching Behavior) and response variable set (Developmental Experience). The scree plots indicate the proportion of variance explained by each principal component and show that only the first principal components are significant.

Table 3 contains the loadings matrix for coaching behavior (predictor) variables showing the correlations between the first three principal components and the original variables. A look at Table 3 shows that the first principal component is correlated with all eight original variables

and is relatively evenly distributed among the first five variables (i.e., generally, if one increases than the remaining increase with the exception of Negative Rapport which has an inverse relationship). More specifically, the first principal component correlated most strongly with Mental Preparation, Goal Setting, Personal Rapport, and is moderately correlated with the remaining five variables. This component can be viewed as a measure of the positive coaching behaviors due to the positive relationship it shares with all coaching behaviors with the exception of Negative Rapport variable, which has an inverse relationship. In looking at the second component, it is mainly driven by Negative Personal Rapport, however, this component only explains about 10 percent of the variability and thus yields little practical interpretability to the data. The third component explains less than seven percent of the variability and yields little interpretability, therefore, the third component did not warrant further explanation.

Table 3

Principal Components Analysis Matrix Loadings for Coaching Behavior Variable Set

	Component 1	Component 2	Component 3
Proportion of Variance	0.690	0.100	0.070
Variable			
Technical Skills	0.361	0.316	
Mental Skills	0.441		
Goal Setting	0.419	0.459	-0.464
Competition Strategies	0.380		
Personal Rapport	0.445	-0.286	0.669
Negative Personal Rapport	-0.230	0.770	0.557
Coaching Life Skills	0.273		0.121
Democratic Behavior	0.173		

Note. Variables of interest (loading > .400) are in bold.

Table 4 contains the loadings matrix for developmental experiences (response) variables showing the correlations between the first three principal components and the original variables. A look at Table 4 shows that the first principal component is correlated with six of the seven original variables and correlations are distributed relatively evenly among the six variables.

More specifically, the first principal component correlated most strongly with Positive Relationships, Emotion Regulation, Adult Networks and Social Capital. The Negative Experience variable (recall has an inverse relationship) was not included in the first component; thus, the first component can be viewed holistically as a measure of positive experiences. Although the second principal component yields little explanatory power it does lend a meaningful interpretation as it is highly correlated with the Negative Experience variable, which indicated that the second component is primarily a measure of negative experiences (e.g., stress, social exclusion, negative group dynamics). Explanation of the third component is not warranted as it explains only approximately 11 percent of the variability. Although two variables load strongly on this component, the variables yield little interpretability and weak conceptual meaning with regard to understanding the underlying structure of the data.)

Table 4

Principal Components Analysis Matrix Loadings for Developmental Experience Variable Set

	Component 1	Component 2	Component 3
Proportion of Variance	0.526	0.134	0.110
Variable			
Identity Experiences	0.324	-0.327	-0.762
Initiative Experiences	0.347		-0.148
Emotion Regulation	0.428		0.200
Positive Relationship	0.534		0.535
Teamwork and Social Skills	0.324		
Adult Networks and Social Capital	0.438	0.213	0.170
Negative Experience		-0.913	0.196

Note. Variables of interest (loading > .400) are in bold.

In order to examine the relationship between perceived coaching behavior and developmental experiences the principal component scores (i.e., linear composite of the weighted observed variables) were calculated for the first component of each variable set, coaching behavior and developmental experiences. The linear regression model comparing the scores for

the first principal component of perceived coaching behaviors (predictors) and the scores for the first principal component of perceived developmental experiences (responses) indicated a significant ($p < .0001$) and a positive relationship between perceived coaches' behaviors and developmental experiences $F(1, 122) = 29.25, p < .0001, R^2 = 0.1934$ (p-value = $3.224e-07$). This suggests that players who thought coaches demonstrated more positive coaching behaviors (and less negative rapport) were more likely to perceive positive developmental experiences (and fewer negative experiences). Furthermore, a comparison of the first principal component score for coaches' behavior and the second principal component score for the developmental experiences (recall the second principal component for response variables is dominated by Negative Experience) indicates a significant relationship ($p < .05$), suggesting that when positive coaching behaviors increase, one would expect (a priori) negative experiences decrease $F(1, 122.) = 4.918, p < .05, R^2 = 0.03875$ (p-value = 0.02843).

Developmental analysis. To investigate the impact of age on the two variable sets, a regression model was run comparing the scores (i.e., linear composite of the weighted observed variables) for the first principal component of perceived coaching behaviors (predictors) and the scores for the first principal component of perceived developmental experiences (responses) with age as a factor. The results yielded a large p-value (p-value = 0.713) for age, indicating that the data showed no difference in developmental experience between younger and older subjects $F(2, 122.) = 14.59, p < .05, R^2 0.1943$. Furthermore, a likelihood ratio test comparing a model without age to a model with age was conducted. The likelihood ratio test showed that including age in the model yielded no significant improvement in explaining developmental experience once coach's behavior had been accounted for (p-value = 0.7126). Based on the results showing no significant difference, no follow up analysis was warranted.

Canonical correlation analysis. Canonical correlation analysis was performed between the set of coaching behavior variables and the set of developmental experiences variables in order to identify a profile of perceived coaching behavior that was associated with a pattern of developmental experiences. Assumptions regarding within-set multicollinearity were met. The first canonical correlation was 0.62 (38% overlapping variance); the second was 0.49 (24% overlapping variance); and the third was 0.43 (18% overlapping variance); and the remaining canonical correlations were below .40. On average, each set of variables can explain approximately 21 percent in the other set ($R^2 = 0.212$). Tests for the significance of relationships between canonical variate pairs (i.e., tests of dimensionality), as shown in Table 5, indicate that the first three of the seven canonical variate pairs, or dimensions were statistically significant ($p < .05$).

Table 5

Canonical Correlations and Tests of Canonical Dimensions

Dimension	Corr	F	Df1	Df2	P
1	0.622	2.565	56	592.294	2.223e-08***
2	0.491	1.928	42	519.398	6.035e-04***
3	0.432	1.581	30	446.000	2.810e-02*
4	0.372	1.143	20	372.412	3.028e-01
5	0.184	0.463	12	299.261	9.350e-01
6	0.117	0.268	6	228.000	9.513e-01
7	0.019	-	2	-	-

$p < .05^*$, $p < .01^{**}$, $p < .001^{***}$

Table 6 presents the standardized canonical coefficients (the contributions of the individual variables to the corresponding canonical variable) for the first three pairs of canonical variates across both sets of variables. Variables with correlations of .500 (25% of variance) and above are interpreted as part of the variate. Looking at the first canonical variable for coaching behaviors, all correlations are uniformly large, thus, one can think of this canonical variate as an overall measure of positive coaching behavior (recall that a Negative Personal Rapport has an

inverse relationship). More specifically, the first canonical dimension for coaching behavior is most strongly influenced by Competition Skills (0.84), Negative Rapport (-0.81) and Mental Skills (0.74). For the variables in the developmental experiences set, the first dimension was dominated by Initiative Experiences (0.66), Emotion Regulation (0.62), and Identity Experiences (0.61); while Positive Relationship (0.55), Adult Networks and Social Capital (0.47), and Negative Experience (-0.53) were less strongly associated. Taken together, the first pair of canonical variates indicated that those athletes who perceived their coaches as high on all positive coaching behaviors and low in negative rapport were associated with perceptions of high positive experiences and low negative experiences (see Figure D5 in Appendix D for a path diagram for the first pair of canonical variates).

Among the variables within the coaching behavior set that were correlated with the second canonical variate, none of the correlations is particularly large, and so, this canonical variable yields little information about the data (the highest correlation was Goal Setting (-0.38). The second canonical variate in the developmental experiences set, was mostly composed of Initiative Experiences (-0.50), while the correlations for the remaining variables were relatively small. Taken together, the second pair of canonical variates indicated that perceptions of higher goal setting behaviors were associated with higher perceptions of initiative experiences.

For the third canonical variate pair of the coaching behavior variable set, Technical Skills (-0.83) was the dominating variable. The third canonical variate pair of the developmental experiences set was most strongly influenced by Teamwork and Social Skills (-0.82). Taken together, these canonical variate pairs suggest that perceptions of technical skills coaching behaviors were associated with the developmental experience of teamwork and social skills, and emotion regulation.

Table 6

Standardized Canonical Coefficients for First Three Pairs of Canonical Variates

	Canonical Variate Pairs		
	1	2	3
Coaching Behavior Set (Predictor Variables)			
Technical Skills	0.47	0.14	0.83
Mental Skills	0.74	-0.26	0.41
Goal Setting	0.66	0.38	0.40
Competition Strategies	0.84	0.06	0.37
Personal Rapport	0.67	0.08	0.12
Negative Personal Rapport	-0.81	-0.18	0.07
Coaching Life Skills	0.61	0.29	0.34
Democratic Behavior	0.65	-0.05	0.22
Developmental Experience Set (Response Variables)			
Identity Experiences	0.61	0.15	-0.14
Initiative Experiences	0.66	0.50	0.26
Emotion Regulation	0.62	-0.37	0.51
Positive Relationship	0.55	0.04	0.22
Teamwork and Social Skills	0.24	0.13	0.82
Adult Networks and Social Capitol	0.47	0.01	0.21
Negative Experience	-0.53	-0.05	-0.29

Note. Variables of interest (loading > .500) are in bold.

A regression comparing the first canonical variate pair from each variable set was conducted. Findings suggest that there is a significant relationship ($p < .001$) between positive coaching behaviors and positive developmental experiences $F(1, 122) = 40.66, p < .05, R^2 = 0.25$ ($p\text{-value} = 3.378e-09$). More specifically, this model predicts (Similar to the PCA regression) that the more positive behaviors (and less negative rapport) coaches are perceived to demonstrate, the more positive developmental experiences (and less negative experiences) players will perceive to have occurred. A regression comparing the second canonical variate pairs from each data was conducted. Findings suggest that there is a significant relationship ($p < .005$) between perceived goal setting behaviors and perceived initiative experiences $F(1, 122) = 28.53, p < .05, R^2 = 0.1895$ ($p\text{-value} = 4.35e-07$). Finally, a regression model the third canonical

variate pairs from each variable set, suggested a significant ($p < .005$) between coaching technical skills and the developmental experience of teamwork and social skills $F(1, 122) = 29.66, p < .05, R^2 = 0.1956$ (p-value = $2.715e-07$). More specifically, examining the variates that are correlated with the third dimension of the developmental experience variable set shows that higher levels of perceived technical skills, mental skills, and goal setting behaviors predict higher perceived experiences with emotion regulation and teamwork and social skills.

Qualitative Results

In the second portion of the study, data gathered from the questionnaires were used to purposively select (athlete perceived) exemplar coaches from each age group (i.e., younger and older) for semi-structured interviews. Qualitative analysis of the data aimed to identify emerging themes of coaching behaviors and generate a detailed exploration of strategies used to promote positive developmental experiences and transfer life skills. In the first coding cycle, an eclectic combination of structural, descriptive, in vivo, provisional, and pattern coding were applied to the qualitative data (Saldaña, 2012). Structural coding resulted in the generation of the three Global Categories, while descriptive, in vivo, provisional, and a second cycle of pattern coding informed the development of major themes from the data. In general, codes were formed both inductively from previous research (e.g., Gould & Carson, 2010; Gould et al., 2007; YES-2) and deductively from language and concepts in the data, which kept the analysis rooted in the participant's own language and perception. Codes aimed to capture the essential elements of the research story, then codes were clustered together according to similarity and regularity (a pattern) that facilitated the development of themes and subthemes (see Appendix E for a summary of codes). The investigator's goal was to find patterns within and then across participant's data, creating a cross-person narrative. When organizing in this way, the

perceptions and opinions of participants are preserved, drawing attention to the topics and issues rather than individual people.

In order to illustrate the rich descriptions of the coaches’ philosophies and strategies with regard to desired developmental experiences and life skill development to yield understanding of the underlying phenomena the results are organized thematically. The themes were organized within the three global categories based that relates to the specific research questions used to frame the interviews: (a) *participatory goals and desired outcomes* (life skills the coaches perceived as being developed through participation on their team); (b) *coaching strategies and methodology* (life skill building and transfer strategies utilized by coaches); and (c) *barriers and challenges* (perceived barriers to the developmental process). Within each global category, higher order themes and subthemes are presented and discussed. The results identify those themes that were common across cases in order to highlight the concepts that could be considered most useful for developing future theory, while providing a clearer understanding of the coach’s role in the development of life skills among young athletes. Figure 3 summarizes the global categories and themes from interviews conducted with the six selected exemplar coaches (coaches are identified as C1, C2, C3, C4, C5, and C6 throughout the discussion).

Figure 3. Interview Data: Categories, Themes, and Subthemes

Global Categories	Higher Order Themes	Subthemes
Participatory Goals and Desired Outcome	Interpersonal and Teamwork Skills ^b	Interpersonal Skills ^a
		Teamwork ^a
	Sense of Identity ^a	Self-Confidence ^a
		Gender Identity ^a
		Accountability ^a
	Initiative Experiences ^b	Responsibility ^b
		Leadership ^b
		Effort ^b
		Time Management ^b
		Goal Setting ^b
Resilience ^a		

Coaching Strategies and Methodology	Personal Development Coaching Philosophy ^a	Positive Impact ^a
		Winning as the Product of a Good Process ^a
	Teaching ^a	Life Skill Instruction ^a
		Modeling ^a
		Active Learning ^a
	Relationship Building ^a	Genuine Care ^a
	Equitable Treatment ^a	
	Humor ^a	
Barriers and Challenges	Parental Influence ^a	Limited Time ^a
		Reinforcing Different Messages ^a
	Popular Culture and Social Norms ^a	

Figure 3. Categories, higher order themes, and subthemes for the interview data.

^a This theme was inductively developed.

^b This theme was deductively developed from the YES-2 scale and/or previous research.

In addition to the qualitative data support for developmental experiences and life skills, quantitative data relative to the current athletes' perceptions of life skills and developmental experiences were collected and summarized (see Table 7). Means and standard deviations from the YES-2 scales (measure of athletes' perceptions of developmental experiences and life skills) were derived from descriptive analysis of YES-2 scores reported earlier. It should be noted, however, that the information presented serves as a reliability check of similar data obtained from the qualitative interviews conducted with the coaches, and no formal comparative analysis was run (when informal comparisons are drawn, they have been done for a particular scale mean in relation to its position within the instruments range of possible scores, which can run from 1 to 7). Next, each of the themes and subthemes from the qualitative data will be described within each of their respective global categories. Finally, a brief summary of the findings is discussed.

Developmental experiences and desired life skill outcomes. Coaches identified several major goals with regard to the developmental experiences they desired their players to acquire through participation on their team and life skills they hoped transferred to different domains.

The thematic categories discussed by the interview participants were interpersonal and teamwork skills, a sense of identity and identity reflection, initiative experiences, and resilience. These broad themes are also supported by current athletes' perceptions of life skills and developmental experiences reported in the YES-2. A look at Table 7 shows that nearly all developmental experiences and life skills identified as important to coaches using the qualitative methodologies were also reported in the YES-2, which is not surprising, given that the YES-2 subscale labels were used as discussion prompts (as needed) for participants in the interviews. The only exception to this trend was coaches' discussion of the theme of resilience, which is not represented in the YES-2 subscales.

Table 7

Qualitative and Quantitative Support for Desired Developmental Experiences and Life Skills

YES-2 Developmental Experiences and Life Skills	Coach Interview Data Support (yes/no)	Student Athlete Quantitative Data Support (M/SD)
Identity Experiences	Yes	5.26 / 1.04
Identity Exploration		
Identity Reflection*		
Initiative Experiences	Yes	5.54 / 0.89
Goal Setting*		
Effort*		
Problem Solving		
Time Management*		
Emotion Regulation	Yes	5.11 / 1.27
Interpersonal Relationships	Yes	5.11 / 1.27
Diverse Relationships		
Prosocial Norms*		
Teamwork and Social Skills	Yes	5.83 / 0.86
Group Process Skills (i.e., teamwork)*		
Feedback*		
Leadership and Responsibility* ^a		
Adult Networks and Social Capital	No	5.44 / 1.09
Integration with family		
Linkages to Community		
Linkages to Work and College*		

Negative Experiences	No	2.49 / 0.98
Stress		
Negative influence		
Social Exclusion		

Note. * YES-2 subscales explicitly discussed by coaches

^a. Collapsed into a different category in qualitative analysis

Interpersonal and teamwork skills. When asked what coaches hoped athletes learned from participating on their team, coaches indicated that they wanted their athletes to develop interpersonal or social skills (i.e., learn how to “treat other people”) and teamwork skills. It is interesting to note that descriptive analysis of the YES-2 scores shows that this developmental experience had the highest mean quantitative score (M= 5.83), suggesting that current athletes perceived interpersonal and teamwork skills to be most representative of the positive developmental experiences and life skills learned while participating on a team.

Interpersonal skills are the skills and characteristics required to successfully interact with others in a meaningful way and to build relationships. Coaches recognized that team sports naturally provide a context for building relationships and indicated that their role was to help teach athletes how to successfully navigate social interactions. Coach C5 stated:

Building relationships in a variety of settings and I think again it’s something that sport almost forces us to do. They can’t be on the court with their phone or with their computer. You simply have to. It’s a forced interaction... I think that it’s a skill that even at 18 is something they aren’t very good at and we have to teach them how to do that.

C1 felt that athletes were uncomfortable having face-to-face conversations and expressed the necessity of building conversational skills stating, “they have to be able to have a conversation with people.” C1 discussed a desire to help athletes recognize and be more aware of their nonverbal communication on and off the court as well. On her team she stated that she “talk(s) a lot about nonverbal communication and how that comes off on the court and what they are doing off court is also watched and how they hold themselves and what they are like in between plays.”

C5 also stated that in sport “it goes back to respecting your teammates and wanting to build those relationships.”

Analysis showed that all six coaches emphasized the importance of teammate interactions and building relationships with teammates. Trust and respect appeared frequently in the context of relationships among teammates indicating the importance of these characteristics in establishing relationships with peers. For example, being a “good teammate” was recognized as an avenue to success on the court, “we are going to win because of the way we treat each other.” One coach explained that she expected her players to treat each other with respect, “I think another thing I expect is that everyone is good to each other and be good teammates.” C3 demonstrated a high degree of understanding of how trust and peer relationships impact both the individual (by increasing a willingness to take risks) and the team’s success:

Getting kids to trust the other people around them enough to say, ‘hey I am going to put my neck out here and risk it with my emotions so we can be successful, and if that doesn’t work out than I am going to need you guys to help me out.’

Social and interpersonal skills were recognized as skills that are valuable within a team context as well as in contexts outside the gym such as interactions with roommates, co-workers, and college coaches. C3 demonstrated an understanding of how interpersonal skills and the ability to collaborate with others was vital throughout the life span. He stated that he tells his team:

Everyone learns how to relate and work with other people because there are very few things that you are going to do in your life that you are going to be totally by yourself and you are going to have to deal with other people quite a bit whether you like it or not.

While, learning about *teamwork* was a priority for all six of the coaches interviewed for this study, C3 appeared to emphasize this skill most. Teamwork as a theme is defined as working together with a group of people that help to achieve a goal. The following phrases were used by

coaches when explaining teamwork, “playing for each other,” “succeeding and failing together,” and “working together.” In addition, C5 stated that his goal was to take a “team that is made up of 10 individuals into a team that functions really well together.” Teamwork is indicated on the YES-2 as the subscale called, “group processing skills” and the concept of learning that you do not have to like others to work together was represented by a question within this subscale (“Learned that it is not necessary to like people in order to work with them.”) as well.

Interestingly, within the social and teamwork skills scale group process skills had one of the highest mean quantitative scores ($M= 5.91$), suggesting that athletes thought coaches created opportunities to interact, collaborate, and work together with teammates frequently. C3 also expressed that it was his goal (and part of his role) to ensure student athletes understood the importance of working together and their contribution to the success of a unit. When discussing team dynamics and success he stated:

So just being sure that the relationship of the group is healthy. Not everyone is going to be best friends and people are going to have their issues and that’s fine, but making sure the kids understand that hey we are all here to do a job... We have a goal for the group that is in front of us and everyone has to contribute to that and this is a healthy environment.

He continued to talk about teamwork, linking the importance of teamwork skills within sport to contexts outside sport:

Thinking about the long term stuff where you are going to have to work with people you don’t like and do something with someone who is not your favorite person and you just have to find a way to do your job and be ok with it. If at the end of the day you are not best friends than that’s fine and you can go your separate directions when its all said and done, but when it is time for the team to be successful, you have to look past all the little stuff and try and get them to look big picture wise.

C1 also verbalized this same concept related to teamwork. She stated that she tell his players:

I am not expecting you to be best friends with everyone, you are not going to be best friends with everyone on this team and you are not going to like everyone that you work

with, but you have to work with them so you have to figure out a way to communicate with that person in a meaningful way where you can still get stuff done.

As illustrated by the above quotes, these coaches understood the applicability of teamwork skills to other settings, and explicitly told their players how a skill such as teamwork translates to other contexts such as work-life and college. Furthermore, these coaches tapped into the core of teamwork, which is that it requires “not friendliness, but respect,” in order to achieve a goal or “big picture.”

Sense of identity. Analysis of the data showed that four of six coaches aspired to have student athlete’s develop a strong and positive sense of identity, defined as a person's conception and expression of their own individuality (i.e., being themselves). C3 and C4, in particular, discussed the importance of creating a climate where athletes felt comfortable being themselves and could reflect on who they were as individuals (not necessarily as volleyball players):

One thing that I think is important is really allowing the kids to be themselves... you should never sacrifice who you are for another person or a group of people unless there is really some valid reason to do so. Being worried about what they think is not a valid reason.

C3 stated that it was important to him to construct an atmosphere where “everyone has an identity and that they are willing to express that not be afraid to be who they are” and where the “kids to feel like they can just be them and they don’t have to put on a face.” Furthermore, he believed having a sense of identity was a crucial part of lifespan development, “I am big on people in general like feeling good about who they are which is an important part of being a successful adult.”

C3 was also aware of the many facets of identity including the “athlete identity” that many players develop. In addition, he was conscientious of the conflict that can arise when an athlete is not longer involved with their sport (as a consequence of quitting or not making a team). He

coach spoke about the power and conflict of a young person's identity being so strongly tied to a specific sport:

It's really hard to watch these kids struggle like that because sometimes it's their identity and some times it's the identity their kids want for them, but for some reason when its gone they can't really redefine very quickly or deal with who they were or who they thought they should be.

This quote also illustrates the compassion this coach felt for the athletes when they go through a process of identity exploration and reflection.

When queried further about identity development and asked to reflect on possible gender differences between young male and female athletes, the coaches discussed challenges for female athletes such as self-confidence and gender identity. *Self-confidence* or "the opposite of self-doubt" was viewed as critical to the development of identity and recognized as a critical characteristic that can be learned through sport experiences. The two females coaches of the group discussed (with the most frequency) a desire for female athletes to develop confidence in order to combat feelings of insecurity and the desire to be accepted by everyone or "fit in" (even at their own expense) that typically plague teenage girls. For instance, C2 explained:

I am big about your image, like what you think about yourself, confidence; I can't believe I didn't say confidence earlier. Being confident in what you believe in and who you are, which asking a 13 or 14 year old to do is mind blowing, but I tried to get them to walk confidently and talk confidently.

She indicated that modeling (a coaching strategy discussed later) confidence was way to help her players walk and talk confidently. Coaches also expressed a desire for athletes to develop a sense that they possessed the abilities or requisite skills to perform a task or accomplish a goal (i.e., self-efficacy). C3 stated that his goal was to "see a kid be able to do something that they weren't able to do before or that they didn't believe they could do before."

Two coaches discussed the idea of *gender identity* and how it was important for them to help female athletes explore the idea of "feminine as encompassing characteristics such as strong, capable, and competitive. The two male coaches (C4 and C6) were adamant about "trying to break up the inherent conflict between competitiveness and aggressiveness and what is expected of the gender" (C6). For instance, C4 stated:

One benefit of sport is teaching young women that it is great to revel in being physically capable and there is nothing gender specific about being physically capable, strong, or athletic, it has nothing to do with whether or not you are a boy or a girl. I think it has meaning for what they are doing and I think that is really important for young women because it is so easy to let a society or culture dictate how you are going to perceive yourself and if you don't fit this certain look or whatever than you are not worth anything or you are a second class citizen so I reject that and I think this is a great avenue to teach young women to reject it and instead embrace being powerful and capable and that it's a good thing.

He expressed a profound understanding of the conflict many female athletes face with regard to conforming to a narrow view of gender identity while being a competitive athlete. As demonstrated by the following quote he encouraged a broad definition of femininity and shows an understanding of the impact of feminine stereotypes on young female athletes.

With females it definitely comes up and women seem to be more forced to conform to this idea of femininity and that is not fair to 985 of the women walking around out there and I think instead we need to be grateful for the differences and everyone has different gifts and things they are good at and there is nothing wrong with being a tall, powerful and athletic female.

Initiative experiences. Coaches expressed a desire for their athletes to have initiative experiences, which are experiences with skills that help an individual become an autonomous adult. These skills include responsibility, accountability, leadership, time management, goal setting, and effort. Initiative experiences was one of the higher mean quantitative scores of the YES-2, which suggests that current athletes perceived initiative experiences (specifically effort, time management, and goal setting as defined by the YES-2) to be more representative of the

positive developmental experiences they had when participating on a team. The word *accountability*, defined as being responsible and answerable for actions or an expectation, appeared 24 times in four out of the six interviews, which suggests its significance as a life skill learned through sport. C1 explained that sports developed accountability by encouraging student athletes to take ownership and responsibility for their personal possessions:

I think sport is a great way to teach them to be accountable, like, hey carry your own stuff out of the gym, fill your own water bottles, do your own laundry and hey how about you pack your snack bag instead of letting the chap' do it.

Other coaches gave similar accounts of how athletes demonstrated accountability and responsibility (two skills that often appeared in tandem). The prevalence of accountability, responsibility, and leadership occurring together suggest that these are highly interrelated life skills and are thought of as skills that are frequently facilitated through sport participation.

Responsibility, defined as taking on an action or control independently, was a life skill discussed as a desired outcome by all six coaches. Coaches often asked the players to be responsible for their own equipment and athletes were expected to be accountable with regard to being prepared to play. One coach said one of her goals was, “teaching the kids, especially at 14, to do things for themselves. So I am big on throughout the season on the idea of passing the torch and them starting to take care of their own thing.” One coach, who was also an alumni, discussed how these skills (e.g., responsibility, accountability, time management, etc.) transferred to being a college athlete stating, “I was prepared for the discipline of being a college athlete like you are responsible for all these things and then performing at a high level just like you are here.”

All six coaches discussed how sports have the ability to develop *leadership* skills and gave accounts of how they provided opportunities for their athletes to lead their peer group in practice situations. For instance, C1 described what leadership opportunities looked like in her practice:

I guess with the leadership thing, leading their own timeouts and at the end of the year we had them put, they were responsible for putting 2-3 things on the board that they wanted to commit to and they decided as a whole as a team... They were in charge... whatever they wanted to do to motivate themselves that was their focus and they decided that. So that's like a leadership and accountability thing and it means a lot more coming from them.

This description also demonstrates the correlation among leadership, responsibility, and accountability in the context of youth sport. Leadership, in particular, was a skill that was also talked about with regard to transfer to other domains, for instance, C1 said:

They are going to have to know how to be a leader at some point in their life so being able to step up and voice what they care about the team doing is super important. So when we push them to do that I think it helps with that stuff. Like this is my idea in the board room or whatever it may be your idea, but you don't share it than its obviously not going to be an idea you have to voice those things.

There was also a desire for athletes to “walk away with what it means to work, what true effort means.” Furthermore, C4 wanted his athletes understand the process of putting forth sustained *effort* over time to accomplish a goal and to value hard work as its own reward:

I don't think they really know what it means to work hard so giving them the perspective of I think you can push more than you are comfortable pushing through, but also understanding that simply just because you worked hard doesn't guarantee you certain things. Hard work to me is its own reward and putting in a really great day of work or a hard practice or a hard drill or whatever it is there is a reward in a of itself because you are able to stretch your boundaries and what you think you are capable of doing.

Three of the six coaches talked about instances of *setting goals* with their players. For example, one coach stated, “I think when they set their goals we talk about pushing this goal forward if you are looking to play in college, this is how its going to translate” and another said, “we had them write down goals and some of those goals we told them have to be character

oriented.” *Time management* was another skill at least three coaches listed as a skill fostered (and transferred) by playing on a team at Volleyball Club. For instance C1 said,

I think the time management stuff is huge. If you don’t play a sport in college you still have to balance classes, workload, and social time, and if they have to get a job and they have to be able to do it.

Resilience. The data showed that three of the six coaches prioritized the development resilience among their players. Resilience is defined as the ability to face adversity and overcome a challenge. Coaches described resilience using words or phrases such as “tough,” “the ability to overcome challenges”, and a “willingness to fight.” Although scales on the YES-2 did not represent resilience, it was a prominent theme running through the qualitative data. One coach explained that through sport “we are learning how to meet a challenge head on and believe in ourselves when we try and do it.” The idea of confronting challenges, rather than quitting was crucial to coaches in this study. Specifically, C3 stated:

I think just building that character of just when there is a challenge in front of you just being willing to confront it rather than throwing up your hands and saying ‘oh well we can’t do this’ and its something you see kids do quite often in this sport.

Similarly, another coach said:

It’s about you learning how to find a way to tackle any challenge no matter what it is and some challenges are going to be a hell of a lot harder than other challenges, but you have to have the mindset that no matter what is in front of you, you are going to try and accomplish your goal.

C2 reflected on her most recent season and described her favorite moment as one where her team demonstrated resilience and teamwork, which resulted in success against tough physical odds:

We had been playing since 8 and we had been up since 2am because there was issues with the rooms...then played 2 crossovers back to back... the mentality with our team, we had to battle through so much to get to that point and it was the most selfless the kids have ever been and we had kids who were injured and didn’t get to play in that match and it seemed like everyone was giving and everyone was pulling for us.

Other coaches described similar experiences where their teams overcame psychological barriers.

For instance, C3 described the challenges of being on a second tier team in a competitive club and the importance of developing a mentality where you look past perceived disadvantages and preserve:

I think that is also a big part of the blue team thing where these kids have already been told at least once ‘you are not the best’... We can take this years team for example, we were a very small 16s team and almost every other team we played I can count on one hand the teams we were bigger than. So for them to go out there and look past at what everyone else would perceive as a weakness or look past when everyone else would say you can’t do that and just try and see what happens is really important.

Not only did this coach recognize the stress and pressure that competitive sport can put on athletes, but he clearly outlines that coaches can help athletes cope with stress by teaching them to be resilient. Sport is by nature competitive and provides opportunities to deal with challenges, however, it is the coach who can teach players to push through challenges, look past barriers, and be resilient.

Coaching strategies and methodology. Coaches play a vital role in the development of the physical competence required to compete at a high level as well as the development of essential life skills. One major goal of this study was to better understand the techniques and methods coaches used to develop and have life skills transfer to different domains. Thus, it should be noted that strategies cited by a single source or less frequently than others are not necessarily labeled unimportant; rather, the significance of a strategy was determined by the perceived effectiveness or emphasis a coach placed on it. This method of determination is also reflective of the phenomenological approach to inquiry, which aims to describe a composite of the essence of the experience of the participant (what and how they experienced). Analysis of the data revealed three higher order themes that reflect general strategies perceived to be critical for developing life skills among athletes: having a coaching philosophy centered around personal development, using a variety of methods for teaching skills (i.e., direct life skill instruction,

modeling, active learning), and the ability to build meaningful relationships with athletes. Table 8 shows coaching behaviors as measured by the CBS-S subscales, Democratic Behavior scale, and Coaching Life Skill items and identifies both qualitative (coach interview) and quantitative support (athlete survey response) for coaching behaviors and strategies.

Table 8

Qualitative and Quantitative Support for Coaching Behavior and Strategies

CBS-S, Democratic Behavior, and Coaching Life Skills	Coach Interview Data Support (yes/no)	Student Athlete Quantitative Data Support (M/SD)
Technical Skills (i.e., feedback to improve skills)	No	5.01 / 1.44
Mental Preparation (i.e., mental toughness, confidence)	Yes	4.54 / 1.66
Goal Setting (i.e., identify strategies, set goals)	Yes	4.10 / 1.67
Competition Strategies (i.e., preparation for competition)	Yes	5.29 / 1.38
Personal Rapport (i.e., positive relationship)	Yes	5.03 / 1.72
Negative Personal Rapport (i.e., negative relationship experiences)	No	2.79 / 1.38
Coaching Life Skills	Yes	5.27 / 1.05
Democratic Behavior	Yes	3.08 / 0.76

Personal development coaching philosophy. At the core of many coaches’ philosophy was the desire to have a *positive impact* or develop good people, with sport viewed as the vehicle to do so. For instance, C1 explained “I go in with the intent of making a positive impact on the person and it just so happens to be through volleyball” and C2 stated, “I think if the only thing we deliver is volleyball and skill than we are not doing our job. So a big part of my philosophy is going beyond the sport and using the sport to teach character.” Furthermore, C4 listed several life skills or characteristics that he thought sports developed in connection to the overarching goal to develop “better citizens.”

I think the goal is to create better citizens and to make better people and help them be tougher and more resilient and more team oriented and less selfish and understand the value of work... self sacrifice, and loyalty, dedication, I think all of those are huge and I think sports ideally provides a great way to develop those in kids so that part of it is great and I like the relationship part of it.

Although the development of life skills was generally viewed as the most important outcome or goal, when asked to rank the importance of the following coaching goals: developing life skills, developing physical skills, winning, and having fun, each coach viewed the relationship among these constructs as being interrelated in different ways. In looking at Table 9, one can see that four of the six coaches ranking life skills as number one, and two coaches rated life skills as number two.

Table 9

Coaches' Ranking of Participatory Goals

	Coach					
Rank	C1	C2	C3	C4	C5	C6
1.	Life skill	Life skill	Life skill	Fun	Winning*	Life skill
2.	Physical skill	Physical skill	Physical skill	Life skill	Life skill*	Fun
3.	Winning	Fun	Winning	Physical skill*	Physical skill	Physical skill
4.	Fun	Winning	Fun	Winning*	Fun	Winning

Note. * Coaches noted these goals are interchangeable in ranking.

Coaches discussed how interrelated these goals were, as a player may need to develop physical skills to win, win to have fun, and develop various life skills to accomplish all three. C3 explained:

I try and make it enjoyable, but never at the expense of the other things and I think winning is very important, but not at the expense of the other things that I have ranked above it. Winning is more important than fun and I think the physical skills are important because I think that is going to help lead into the confidence type stuff because that is how they are going to judge what they are doing.

This quote also demonstrates the concept of de-emphasizing, but not necessarily devaluing winning in light of developing life skills. Many coaches appeared conflicted about their ranking, switching the order throughout their explanation and justifying their choices with caveats. Most interestingly, C5's ranking shifted as he explained his philosophy and the rationale behind it. He initially ranked winning as first with the caveat that he viewed "*winning as a product of a good process.*" The process, however, was one that is grounded in the development of character and life skills. Here is an excerpt from his explanation of this coaching philosophy:

I think to me, if I were to be put on the spot I would say winning number 1 and I feel like I have to apologize for that, but I also think that I view winning as the outcome of a good process and that is truly how I define it. I want to win and I want to have a group of kids who want to win, but... I think that to get to the point of winning you have to go through all of these things along the way and a lot of the time the reason why you win is because you are committed to each other, a life skill, commitment and it has to do with how we are willing to work and accept a role and how we go through tough situations. I get frustrated by people who only view winning, like winning is the only way to measure something... so I think I would put winning first, but viewing as the outcome of a good process and then life skills I look for every opportunity to tie that in.

However, after further explaining that teachable moments and building skills that transcend the court are more important to him than winning he exclaimed, "if we are not doing stuff like that as coaches, than we are missing the boat because that stuff to me is super important and I am talking myself into moving that stuff above winning right now!" The conflict over ranking life skills and winning is reflective of the complex relationship of these two goals within of the unique context and culture of this club, one that strives to be nationally competitive and committed to a mission of personal development. Although this coach valued the process (developing life skills), over the outcome and believed success was not measured in wins and losses, he still prioritized winning, as it was demanded by the larger context. In her own interview, C2 stated that she agreed with C4's philosophy as he had explained it to her in past conversations:

I kind of back C4 on the idea that winning is a product of a good process so I think if you are teaching them to be good people and teaching them to trust each other, which is something we worked on a good deal and you are enjoying the experience, and we talk a lot about when its 10-10 in the 3rd set you better be having fun and not be getting tight. So I think winning is a product of that ... when I got my group of 10 I was like we are not going to win because we are physically dominant, we are going to win because of the way we treat each other and the other things.

This coaching philosophy in which the process of developing skills is emphasized over performance outcomes, was also evident when coaches defined success in a way that deemphasized winning and highlighted the development of character and life skills through a positive experience. For instance, C3 explained:

We absolutely can do well if we fall short of winning, but we do all those other things, but if we win and we fall short of a lot of those things than its not ok...I think some people are so worried about winning they forget that these kids are going to remember all of this and what you do is going to impact who they are in the future and it doesn't matter if you win or you lose, it just doesn't.

Interestingly, although nearly all coaches ranked life skills above winning, through their discussions about winning it was apparent that they also recognized and respected the inherent value of competition and winning to sport (as noted earlier) as well as its applicability to real life situations. As one coach stated:

So we talk about that process thing and I think all of it is important, but to almost seem like you are claiming some higher moral ground because you don't want to talk about winning I think that is garbage. I think we live in a country where winning matters and I think we have to teach our kids that winning matters. If they are in sales its competitive, its not like they are going to say good try, its competitive and you are going to get fired so I don't think there is anything wrong with valuing wining, but not at the expense of principle. What is more important is how to do we get there.

Overall, the coaches in this study adopted a coaching philosophy wherein the process of developing life skills was a priority, while also recognizing value of winning (without over emphasizing it) to the nature of competitive sport.

Teaching. Analysis shows that coaches engaged in three types of teaching strategies in order to facilitate life skills and to encourage transfer across domains. Coaches spoke to their athletes directly about life skills and how they applied to different settings, coaches modeled life skills, and coaches engaged athletes in activities or tasks that fostered the development of a life skill (i.e., active learning).

In order to develop various life skills, most coaches found value in *explicit life skill instruction*. Explicit life skill instruction is a theme derived deductively from the interview data and is defined as talking about a skill directly with players, explaining its value, and framing it with regard to its utility and importance in the future. For instance, when asked about how to develop life skills, one coach responded, “I try and give them a reason why for everything, so an explanation or purpose. I also think that gives them more buy-in to do something” and “I am going to talk about it and give an example of what it looks like in another setting.” Similarly, C6 expressed the importance of verbalizing the practical reasons behind rules and ‘norms’ at Volleyball Club, “... here is why you line up your bags, there are practical reasons for all of this and sometimes I am doing this so coaches get that as well, but I think you have to say it.” When coaches were asked about how they taught a life skill most coaches began saying, “I talked to my team...” this indicated (and was a determining criteria for this theme) that a coach used direct and explicit instruction.

The context in which explicit instruction took place included individual meetings, group instruction at practice, and downtime at tournaments. Coaches discussed life skills such as accountability, responsibility, time management, communication, goal setting, and teamwork both within and outside of the volleyball context with their players. For instance, C2 talked to her team about preparation and time management, relating preparing to take a test in school to

preparation in volleyball practice, “so we talked about like failing to prepare is preparing to fail and how we practice is how we play, and oh you have a test how are you going to prepare?” C3 explained that he would talk about confidence and resilience and how they relate to life outside of volleyball with his team:

We do talk a lot about how we are going to react when things don't go our way ... just remind them in certain situations. It can be as simple as that ok we are going to go out there and react like this to this situation and not because we are worried about winning this game. Yeah that's important, but it's more about we are doing this because it's what is important later in life. So you can just mention it like look at these things we have done here, this self-confidence you have gotten, or whatever, and you can apply this to everything else that you do.

Sports provide opportunities for success, but it is also rampant with failure, and the coaches in this study recognized this dynamic as an opportunity to teach their players how to cope with failure and how to respond to mistakes in an adaptive way, in other words, how to develop resilience. C5, who was also the club director, explained that spent as a club coaches spent significant amount of time with the athletes talking about “response after mistake.” C5 stated that in his own practices and games he deemphasized mistakes in order to promote a mentality of resilience.

Individual meetings also provided opportunities for athletes to receive feedback, practice communicating with adults, utilize goal setting, and reflect on the athletes' skill deficits and strengths within a supportive and constructive environment. C1 gave an example of how individual meetings provided the opportunity for an athlete to practice having conversations with adults or receive criticism:

Maybe you have at least been in a situation where you have been uncomfortable or you have had a hard conversation with an adult or you have to hear something hard about yourself and you are going to hear criticism all your life so maybe you can handle it when you get criticized about your work because you have heard before about your play or like I need you to do better at this and need you to get this done on time.

This quote also demonstrates that when coaches spoke about life skills to the athletes they often connected the skill to the future of the athlete (referencing college or jobs), which facilitates the process of internalizing and transferring the skill across contexts. As C5 explained,

When we do talk about these things in the gym a lot of our coaches over and over are like this is where it applies and with the older kids is easier because you can be like you are going to college next year and that is a big carrot we dangle out there for them.

By talking about life skills and its applicability to college or a job, the skills became more salient to the athlete, motivating the athlete to learn, value, and utilize the skill in multiple contexts. For instance, C5 explained the importance of utilizing teachable moments on the court to talk about how skills such as interpersonal skills, leadership, and teamwork apply to their lives:

It is so important for coaches to find those teachable moments that can take something that we did on the court and be like hey the reason we are working on building relationships now is because next year when you go to college you are going to have a roommate and not one of you has a roommate right now. You have your own room and your own space and now you are going to be living with a slob or a neat freak or whatever that is and you are going to have to figure that out and then someday after college you are going to have a job and you are going to have to work with 10, 20, 50 other people. Maybe you will have a boss or maybe you will be the boss and how are you going to lead or be an integral member of the team and that stuff.

Coaches in this study not only had discussions with their athletes about life skills, they modeled life skills as well. *Modeling* is defined as engaging in or showing the behaviors that coaches wanted or expected from the athletes. When explaining how to develop a sense of competitiveness, for instance, C6 said:

A lot of the strategies for the competitiveness and aggressiveness we just simply look at the behaviors of people who do that and simply ask them to mimic them, pace, body, how they stand and all those things. We try and talk about it and show them how to use those things.

C2 explained that following the same nutrition guidelines or following rules with regard to social behavior (e.g., dress code, shaking the refs hand, cleaning up the bench, nutrition conscious

eating, etc.) were examples of how coaches can model life skills she expected to athletes to develop:

We are at dinner so everyone put your phones in the middle and mine was in there too and I felt that that was a very important thing to see... it seems like all these little things that you do matter, but I think the more we can be in line with the players like being here 15 minutes early and if we are rolling up, throwing our keys in the box, and running on the court the kids pick up on everything...So its more what you do.

Coaches were cognizant of the powerful impact they could have as role model. By engaging in the same expected behaviors as athletes, coaches were putting themselves on the same “level” as their players, which provides an objective and powerful model as well as develops mutual respect between an athlete and a coach. As one coach stated, “you can talk all day, but these kids can see right through it unless you are doing it.” In other words, actions speak louder than words.

One coach cited his own coaching style, “running non-traditional line-ups and receiving criticism for it,” as a model for athletes with regard to being self-confident and comfortable expressing your ideas or expressing who you are (i.e., identity):

I do a lot of weird things line up wise and that sort of translates to a lot of criticism from a lot of parents... it goes back to the idea of like this is what I think is best and this is what I am going to do and I don't really care what anyone else thinks because this is going to give us the strength to do that and to be successful. That is another subtle way where the kids can understand it's ok to bend the rules, to be outside the box a little bit, to not necessarily fit a mold, and then do what you can to still be successful.

This quote illustrates the importance this coach places on helping players develop a sense of identity, and recognizes that by modeling a strong sense of self-confidence he could help instill this life skill among his athletes. Coaches also talked about the importance of modeling prosocial responses and emotional control in situations such as making mistakes, stress, or dealing with conflicts with others. Coaches were conscious about how they reacted to officials during games, how they interacted with colleagues, and the standards and rules they followed.

C5 discussed how he taught character to his players through modeling emotional control in stressful or contentious situations:

I think the idea of responding and my role as a coach is to show them the response in different situations. How do you respond when things are going well how do I personally respond when an official makes a bad call? Do I lose it and then I am no good for the next 5 points or do I do what I have to and then move on from there.

C6 also mentioned the importance of modeling emotional control, respect, and collaboration when he interacted with officials and his coaching colleagues:

The third thing is that we are trying to do as much modeling as possible. So what you want to do for life skills is how do I treat officials, how do I treat other people and trying to model that in front of them as much as we can...I think coaches modeling what it is to be collaborative with each other.

Coaches in this study also emphasized the importance of having athletes be *active in the learning process*, that is engaging in activities that provide athletes with the chance to practice (with decreasing levels of support) and develop a skill. All coaches talked about the importance of having their athletes' practicing, repeating, and engaging in activities (on and off the court) that were intended to build skills such as leadership, communication, and resilience. For instance, when discussing how to develop confidence one coach stated:

Every act counts. Jay (pseudonym) last year would be like if the ball is under the net and its our serve, go get the ball, and hey if you are the down ref and you are going to call a timeout, you better blow your whistle loud and step into the court and make the call. So all these little acts can make someone more confident in themselves and be more aggressive and that is how we attack confidence. It's how you call the ball; it's how you walk onto the court, it's all these small things.

Similarly, C6 commented on how he slowly pushes his athletes toward a goal by having them engaging in progressively harder tasks that eventually have the player practicing a skill outside of the sport context:

We will try and do these things in non-threatening areas so you may say I want you to care about the other team, well that is a really big jump so start with people who are easy, care about the person serving you at the table, the people at the hotel desk.

Similarly, C2 explained that she guided her players through the following “step-by-step” process to practice social skills:

You are comfortable saying stuff to your teammates like telling them to do something different, but now I am telling you to go up to a kid and you may not even know her name and tell her. So it has to be a step-by-step process because they are not going to do it with a kid on their team to a kid at their school, but they have to do with the other 14s so we did a lot of work within our age group and so it was working with our training group. One of the stepping-stones was like cheering for other teams.

This quote also illustrates how this coach was aware of the importance of guiding young athletes through a process with reduced support over time (scaffolding) in order to develop confidence and competence in a skill such as communication. C1 utilized individual meetings as an opportunity to build communication skills and help athletes become comfortable in conversations with adults. C5 spoke about how he manipulated the environment in order to facilitate communication and encourage relationship building among teammates:

The other thing we do is that if we go to dinner as a team the phones are away and we literally stack the phones in the middle and if we don't do that its not that its wrong, but we are just missing an opportunity to build a relationship if we are all sitting their looking at our phones.

C3 and C6 demonstrated a great understanding of what types of emotional and physical challenges their athletes would face in competition and set up practice situations so that the players could practice their emotion control skills and build resiliency. These two coaches discussed preparing for competition and developing resiliency by creating adversity in practice via physically grueling, competitive drills. For instance, C4 said he frequently would create drills that provided “opportunities to compete, to succeed or fail and then opportunities to come back from that so we do a lot of scoring drills, there are very few drills that don't have a winner and a loser,” and that he would “create adversity and create opportunities to either get tougher or show that you are not going to get tougher and so we make practices hard physically and

mentally.” Interestingly, strategies used to prepare for competition had one of the highest mean quantitative scores ($M = 5.29$) on the CBS-S, suggesting that players thought this was most descriptive of their coaches’ behavior. More specifically, the ideas coaches shared about practicing and preparing for competition were captured by a specific item within the Competition Strategies scale that stated, “The coach prepares me to face a variety of situations in competition.”

As discussed earlier (in the leadership section) C1 explained that she incorporated leadership opportunities into her practice by allowing players to make decisions in practice and encouraging them to lead the team during timeouts or establish the norms for practice. She explained, “at the end of the year they were in charge of calling their own timeouts and running their own timeouts... they were responsible for putting 2-3 things on the board that they wanted to commit to. They were in charge...” She allowed the athletes to be responsible for establishing the norms, rules, and goals for the team and expected the student athletes to hold each other accountable for those standards as well. This is a prime example of an active learning process. C1 also explained that she expected her athletes to be responsible for other aspects of playing the sport including taking care of the equipment required to play and communicating information to their parents about practice times, games, and uniforms:

I would only say it at the end of practice, ‘on the travel doc what are you supposed to wear?’ and we would talk about that and if they did not relay that message to their parents that is not OK, you are 15 years old you need to be responsible for what is going on.

In addition, autonomy was scaffolded by asking athletes to take on different ‘adult’ roles, as C6 explained, “we will ask different kids to take different adult roles like asking a kid to go make a reservation for this dinner and let them try our those different roles.” This is also an example of a coach orchestrating an opportunity for practice or active engagement in a life skill.

C6 spoke the most about utilizing teachable moments in practice and was a proponent of integrating sport specific skills and life skills within the context of competitive sports. He stated, “every time we do this we want to layer on as many practical life skills as we can.” In sum, life skills were not only discussed and modeled by coaches, but life skills were developed through simulated situations at practice that allowed athletes to practice life skills within a familiar and supportive context. In many cases this process was consciously done with the goal to help players internalize life skills and promote their transfer across domains.

Relationship building. Coaches viewed establishing a strong relationship with players as a building block that allowed for life skill development to take place. C4 explained, “I think it’s a foundational notion and why this matters and why it can be so powerful because of the human aspect and the relationship.” This quote epitomizes the mediating role coaches’ play in developing life skills and reflects this coach’s deep understanding of the importance of his role as a coach to facilitate the development of life skills. Not only did individual coaches place a high value on positive coach-athlete relationships, but directors of the organization promoted the message that relationship skills are more important than the ability to teach the technical skills of volleyball. C5, who was also the club director, explained that when looking to hire and train coaches, “they can be the greatest technical coach, but if they have no connection what-so-ever with the kids on their team it doesn’t matter it, makes no difference.” Thus, it is no surprise that coaches in this study understood the power of the coach-athlete relationship and demonstrated coaching behaviors linked to positive developmental experiences. For instance, athlete responses on the “personal rapport” scale of the CBS-S also indicated that their coaches demonstrated behaviors indicative of positive relationships (e.g., shows understanding, is a good listener and approachable, demonstrates care for the whole person, etc.). Moreover, the evidence

from two sources (coaches and athletes) indicting the importance and prevalence of relational skills points to the significance of the coach-athlete relationship with regard to fostering life skills.

Coaches discussed several strategies they used in order to establish a positive coach-athlete relationship including treating athletes equitably and using humor; however, the most prominent theme was showing genuine care for athletes. While all coaches discussed the importance developing relationships with athletes, two coaches in particular (C3 and C4) focused on displaying *genuine care* for their players, not only as athletes but also as unique individuals. These two coaches explicitly discussed genuine care, with regard to their overall coaching philosophy and as a tool used to create a positive developmental experience for athletes that facilitated the development of life skills. For instance, C3 illustrated the importance of demonstrating genuine care when he discussed his overall coaching philosophy:

I think something that really helps is that you need to really genuinely care about the kids. So if you go out of your way to really care about their well being and stuff like that and people do that naturally, but sometimes you have to remember they are not just a piece on the chess board, they are a real person.

He suggested that as a coach one can show genuine care by taking interest in parts of their lives that are outside of the sport context, and not making sport the most important priority:

They do so many things outside of us that aren't part of volleyball and it's just a part of their life and its part of ours too, but when we make it (volleyball) the most important thing at the expense of how they are treated, than I think it's a problem.

Furthermore, coaches were able to tie the development of specific skills to the coaching behavior of showing care. For instance, when asked about how C3 helped to develop self-confidence and a sense of identity in his players, he attributed it to developing an environment where the student athletes felt that they were cared for and felt comfortable “being themselves.” He also explained

how he thought a positive coach-athlete relationship helped to facilitate the development of skills by influencing the athletes' motivation and coachability:

If you can create an environment where they are genuinely cared for as a person they are going to be a lot more comfortable and in terms of if you want to be successful at teaching them skills. They are going to listen a lot more to what you have to say and they are really not going to fight to tune you out or be quick to turn on you. So if you take the time to invest in a little of the other stuff, its going to pay off for whatever your goal is, it's going to help.

An item on the CBS-S ("my coach...demonstrates concern for my whole self (other parts of my life than sport)" within the Personal Rapport scale, represented this concept of support outside sport. Given that descriptive statistics showed a high mean score ($M = 5.03$) for this scale, one can conclude that players also perceived that their coaches demonstrated concern for the athletes' whole self with frequency. Once again the convergence of two data sources reveals the significant impact of the coach athlete relationship. These two coaches also talked about how they supported their athletes outside of the gym to make them feel part of the community or family. C3 explained that he showed care and support for athletes on a personal level by taking interest in their life outside of sport and he understood that by investing in their lives outside of volleyball he could also impact their sense of identity (beyond an athletic identity):

Something we used to do a lot which I think would help with this was if the kids did anything outside of volleyball, like if they did orchestra or had an art exhibit, we made sure the team went and that really helped them feel like they are part of a family and a community type thing and that ultimately the volleyball is important, but it's not the most important thing. So when they fail on the volleyball court they don't feel like they have lost everything that these people care about them for.

When asked an open-ended question about what coaching strategy has the biggest impact on young athletes, C3 responded:

I think I would just hammer a little more on the point that you just need to genuinely care about them as a person and not a volleyball player... you always have a big picture idea and its very rarely about that point that you just played or the match you are in or the tournament you are at right now. It's so much more about 6 months from now, a year

from now, 2-3 years from now and what your impact is going to be on that kid forever, and for all intents and purposes and I think some people are so worried about winning they forget that these kids are going to remember all of this, and what you do is going to impact who they are in the future and it doesn't matter if you win or you lose, it just doesn't.

This quote implicates several strategies already referenced including the importance of de-emphasizing winning and establishing a meaningful relationship, and it demonstrates the understanding this coach has of the impact a coach can have on an athlete on and off the court.

Three of the six coaches explained that it was important to engage all players in practices and games and treat all players equally regardless if they were starters or nonstarters. These coaches viewed *equitable treatment* as a way to show that each player was cared about and valued as a member of the team. By making sure “everyone on that 10 person team has a specific role in every game” coaches could increase the self-esteem of the player as well as contribute to a healthy coach-athlete relationship and ultimately increased the likelihood of facilitating life skills. C3 explained that he tried not to differentiate feedback or experiences stating that he kept “the playing field level and we are all here to do the same thing, there are no stars, I don't care even if there genuinely is a star on the team, they can't be treated any differently at any point in time.” By showing athletes that they each had value and were cared for equally, these coaches also believed they were able to be more impactful with regard to athletes' sense of self-worth:

I think from a coaching standpoint, making sure that every kid knows you care about them genuinely and not just because they are the best one or because they are a starter... I think that if they get the sense that you are doing that, it helps them learn that they are valuable and that they can contribute.

This quote illustrates this coach's insight into how equitable treatment plays a role in developing a genuine relationship.

Half of the coaches said that they used *humor* (i.e., “joking” or “kidding”) with players to help break barriers of the hierarchical structure between coaches and athletes and to encourage their athletes to be themselves:

What I have found is that as a teacher and a coach if I can use some thing to throw them off a little bit I am going to get an honest reaction out of them... So until I kid around with them I can't break through the 'yes sir, yes ma'am' thing.

As one coach simply stated, being “willing to joke around and be goofy when appropriate again and just be silly is important.” C4 explained that being himself and showing his humorous side was a strategy he used to show players he cared. He said:

I think a lot of coaches make a mistake when they try and be someone else. So I kid around with them and I talk to them about stuff other than volleyball. If we are on a road trip I am not sitting in my room ignoring them, I make sure I go out to eat with them, or we take them somewhere and we are talking and joking around... I say that to them, I love you kids and I want what is best for you.

In sum, the three strategies that helped to foster a strong positive coach-athlete relationship were showing genuine care by valuing each player as a unique person outside of volleyball, treating players equally, and using humor to deconstruct the hierarchy between coaches and athletes.

Barriers and challenges. Two themes emerged when asking coaches what challenges or barriers they face when trying to promote life skill development within the sport context and facilitating transfer across contexts. The most common roadblock to building life skills was the influence of parents, which was discussed by all six coaches. As one coach stated, “it can be tough if you have to battle parents.” In addition, half the coaches discussed current social norms and popular culture, such as the use of technology (i.e., texting on cell phones) as barriers to developing important life skills such as communication and interpersonal skills.

Parental influence.

It's one-way or the other, I don't think it's ever a neutral effect of the parent. I think you either have support from the parent or you have opposing messages and then you have no strength or power with the kids.

As captured by this quote, the role of parents in sport was a controversial topic. Parents were the topic of many frustrated conversations with coaches and were largely viewed as barriers to the development and long-term internalization of life skills. In general, the problems centered around parental involvement were twofold: first, coaches have a limited (and minute compared to the time spent with parents) amount of time they spend with athletes per week that limits their potential to be impactful; second, when parents reinforce a different message (i.e., winning is most important) than the coach and the influence they have on life skills development can be undermined. C3 illustrated how the combination of the limited time spent with athletes and having parents who are reinforcing different messages can negatively impact the development of life skills:

You probably are not in constant contact with a kid after 15 years or something like that and your maybe 1000 hours that you put into this kid doesn't even compare to the million hours that a parent puts into the kid. So if the parents are not on board with what they (coaches) are doing than it might all get undone.

Coaches expressed frustration in the simple fact that they have *limited time* with their players, especially when compared to the amount of time spent with parents. C2 made this point, "I only get the kids for 5 hours a week and what small fraction of their time is that, like they spend 80x that with their parents." C1 and C4 also shared this frustration, "I only have 5 hours a week with them and it's hard to work miracles in 5 hours." Not only was it difficult to build life skills in such a small window of time, but one coach also felt that athletes who were more dependent on their parents within the sport context (i.e., parents that came to every tournament),

struggled to develop a sense of autonomy and responsibility because they missed opportunities to engage in important initiative experiences with their peers.

Five of the six coaches explicitly discussed how parents became a barrier when they were *reinforcing a different message* to the athletes, a message that was counter to the life skill building approach reinforced by most coaches in this study. As C6 explained, “it’s fine to say that we want this for our student athletes, but if their families don’t want that for them than there is a disconnect and its not going to work.” More specifically, coaches believed that when parents’ values and priorities were about winning, physical development, playing time, and college scholarships, they undermined the work coaches put forth to instill a sense of value for personal growth. For instance, one coach said, “it’s tough and you have to deal with a lot of people and parents are part of that and a lot of times all they (parents) care about is winning and losing.” Illustrating this point further C6 said, “I think if I am the only one interested in producing a good citizen and their parents are only interested in the playing aspect of it than that is very difficult to overcome.”

Although the majority of coaches spoke about parents as problems, three coaches also spoke about parents in a solution-oriented way. While these three coaches recognized the barrier parents could create when they reinforced a different message, but they also suggested involving parents more in order to create buy-in with regard to prioritizing life skill development, which was surprising given the other coaches stance on minimizing parental involvement:

It’s not as if all the parents buy in and I think this is where we need to do a better job is making them understand why we do things and I think we do a good job with the kids, but to get that reinforcement at home, that is a challenge and I don’t think there is any parent out there who is going to say I am not going to support them I think that is ridiculous, I just think they don’t understand why to the extent that they should and it’s just that we need to share that with them.

C6's solution oriented thinking with regard to involving parents reflected a deep understanding of the influence of outside factors on what coaches are able to do in the gym, and the advantage of aligning the messages of the adults that have the greatest impact on the child (i.e., the coach and the parent). He also thought parent involvement was a key to helping life skills transfer saying that, "as long as everyone is working together than the odds of having transfer are great."

C2 also ascribed to this solution focused view of parents' involvement:

If they (parents) are preaching a different message, my message isn't going to win and I am not going to get anywhere, but if we can combine the message it will be stronger and maybe we will get through to them. It's one-way or the other, I don't think it's ever a neutral effect of the parent. I think you either have support from the parent or you have opposing messages and you have no strength or power with the kids. So that is where it started so then what I did right off the bat I met with the parents.

Generating parent buy-in (by increasing their involvement in the process) was a strategy two coaches proposed in order to help develop life skills and have these skills transfer to other settings. This view on parental involvement was a direct contrast to the other coaches, who wanted to keep parents further away from the process. However, it sheds light on the potential solution to a tremendous barrier that comes with coaching young athletes and transferring life skills to home, school, and community.

Popular culture and social norms. The technology and the trends in modern society were also viewed as barriers to social skill development, relationship building, and learning of life skills such as autonomy, self-confidence, resilience, and interpersonal skills. For instance, C1 stated, "they stink at talking to adults especially now because everything is a text message or an email" and another felt that "they are more concerned with what is going to happen to them in the next 15 minutes and how many people liked my picture on instagram" than looking at the big picture. Similar to C1, C5 implicated technology as a barrier to learning relationship building skills and found that by eliminating access to phones during team activities, there were more

opportunities for social interaction and relationship building. He stated, “we are just missing an opportunity to build a relationship if we are all sitting their looking at our phones” and “they can’t be on the court with their phone or with their computer.” This last quote emphasizes the natural context for which sport support social interaction and ways for coaches to mimic that interaction off the court.

According to one coach in the study, a major challenge was “America’s culture,” which was further explained as a sense of entitlement or instant gratification:

I mean I think the generation in general is fighting a lot and everything is instant and they get a lot of stuff without having to work hard and what I think is even worse is that they are told if you work hard that you can it get and having them learn that you can work your hardest and not win or have success and so that is when we really started having to redefine success.

She felt that this culture interfered with the development of effort and resilience, which prompted her to work with her team in defining success in terms other than winning or losing, that is, terms that valued the process. In addition, one coach believed popular culture and social media was a barrier to exploring gender identity and the development of a healthy self-image, stating, “it’s so easy to let a society or culture dictate how you are going to perceive yourself and if you don’t fit this certain look or whatever than you are not worth anything.” These are important issues for coaches to consider, as the society we live in is more dependent on technology and future research is needed to explore the impact of social norms and technology on youth development.

Summary

Overall the results from this study show that the types of behaviors perceived to be used by coaches influenced the developmental experiences (i.e., life skill development) of players. Specifically, the perceived presence of positive coaching behaviors (and absence of negative rapport) was associated with positive developmental outcomes and less negative experiences.

The perceived coaching behaviors of teaching mental skills, goal setting, competition strategies, personal rapport, coaching life skills, and democratic behavior were the coaching behaviors most highly associated with YES-2 positive experiences scores. The developmental experiences scores most highly associated with the aforementioned coaching behaviors were identity experiences, initiative experiences, emotion regulation, positive relationship, and adult networks and social capital. Moreover, age of the athlete did not impact the relationship between perceived coaching behavior and developmental experiences, indicating that the aforementioned coaching behaviors are appropriate and effective for both younger and older adolescents.

Above and beyond finding a link between the behaviors athletes' perceived coaches used and developmental experiences (i.e., development of life skills), this study provided a robust description of the strategies coaches utilized to facilitate the development and transfer of life skills such as interpersonal and teamwork skills, skills related to initiative experiences, and resilience to domains outside of sport. For female athletes in particular, coaches felt it was important to create an atmosphere for the development of self-confidence and gender identity. The coaches' philosophies centered on personal development and the coaches possessed an intentional plan for teaching life skills. They identified multifaceted teaching strategies to foster life skill attainment such as engaging in direct dialogue about life skills, modeling life skills, and providing opportunities for players to engage in active learning tasks that allowed them to practice and master a life skill with support and guidance. Finally, coaches stressed the importance of establishing a positive, genuine, and caring relationship with players in order to influence their development over time and across contexts.

CHAPTER V: Discussion

The purpose of this study was to explore the relationship between perceived coaching behaviors and developmental outcomes for female adolescent athletes participating on a competitive sport team. More specifically, this study sought to investigate the relationship between types of coaching behaviors perceived to be used by coaches and developmental experiences, as well as the process through which coaches developed life skills among female adolescent athletes. The results from this study confirmed the investigator's general hypothesis, demonstrating that the types of behaviors perceived to be used by coaches influenced the developmental experiences (i.e., life skill development) of players. More importantly, the perceived presence of positive coaching behaviors (and less negative rapport) was associated with positive developmental outcomes and athletes who reported higher levels of positive coaching behavior also scored lower on negative experiences. In particular, the perceived coaching behaviors of teaching mental skills, assisting with goal setting, utilizing effective competition strategies, building personal rapport, talking about life skills, and engaging in democratic style of leadership were the coaching behaviors most highly associated with YES-2 positive experiences scores. The developmental experiences scores most highly associated with the aforementioned coaching behaviors were identity experiences, initiative experiences, emotion regulation, and opportunities to engage in positive relationships with peers and adults. Moreover, age of the athlete did not impact the relationship between perceived coaching behavior and developmental experiences, indicating that the positive coaching behaviors are appropriate and effective for both younger and older adolescents within competitive team sport.

The body of research examining the psychosocial outcomes of participating in various extracurricular activities has identified sport as prominent positive youth development context. As a highly structured and socially interactive context under the leadership of adult mentors, sport naturally creates a context that supports youth development. Sport provides ample opportunities for physical and psychosocial skill development that help youth become healthy and productive adults; however, participation does not guarantee beneficial outcomes (Broh, 2002; Eccles & Barber, 1999; Eccles et al., 2003; Fredricks & Eccles, 2006; Marsh, 1992). More recent studies have documented that athletes' report acquiring a range of life skills including emotional regulation, initiative related skills (e.g., setting realistic goals, managing time, taking responsibility, etc.), respect, teamwork, leadership and social skills as well as a number of physical skills (Gould & Carson, 2010; Gould et al., 2012; Hansen, Larson, & Dworkin, 2003; Larson et al., 2006). However, these outcomes are highly dependent on the structure of the program and the behaviors of the coaches. Findings from the current study are representative of what is found in the literature and substantiate the general association between sport participation and positive psychosocial outcomes, thereby supporting the notion of sport as a positive youth development context.

Similar to Gould and Carson (2010), this study aimed to further explain the link between sport participation and outcomes by examining the role coach behavior plays in this relationship. In support of this study's prediction and previous research (Gould & Carson, 2010) findings showed a positive relationship between perceived coaching behaviors and developmental experiences. This finding suggests that the link between sport participation and positive developmental experiences is influenced by the behaviors perceived to have been used by

coaches. In addition, the elevated between team variance indicates that each team was impacted by their coach's behaviors in unique ways, resulting in significant differences between teams with regard to perceptions of coaching behavior. In considering the cohesiveness and homogeneity of the training environment within the context of Volleyball Club, this is an interesting finding, suggesting that each team is a unique developmental context highly impacted by the behavior of the individual coach. Given that Volleyball Club has their own facility where the culture emphasizes both personal development and physical development and evidence that coaches are hired on the premise that they embrace a personal development oriented philosophy, one may expect all athletes (regardless of their coach) to have been exposed to similar coaching behaviors. Although within teams each athlete reported a similar experience with regard to coaching behavior, teams had remarkably different experiences with each coach and their respective coaching behavior. This finding further supports the hypothesis that coaches, above and beyond the structure of the sport context, play a substantial role in influencing the athletes' perceptions of the coach and their sport experience. Moreover, this finding has important implications for future research in examining individual sport teams as distinctive developmental contexts.

In this study, all coaching behaviors measured, with the exception of behaviors associated with negative rapport (e.g., using fear, yelling, showing favoritism, etc.), had a positive association with indicators of a positive sport experience. According to the athletes in this study, coaches taught mental and physical skills using visual and verbal techniques; provided advice on how to stay confident, positive, and mentally tough and modeled sportsmanship; helped athletes set goals and supported them through the process of attaining a goal; prepared athletes for competition; demonstrated trustworthiness and concern for the athlete as a whole person; and

talked about how sports lessons related to life. In reviewing the literature on coaching behaviors preferred by female athletes, the findings from this study in comparison are consistent. Similar to previous findings (e.g., Sherman et al., 2000) democratic behavior, positive feedback, and providing instruction were related to positive developmental outcomes for the female athletes in this study.

Supporting evidence from Gould and colleagues (2012), athletes in this study who reported more positive coaching behaviors also reported less negative outcomes in general. Negative rapport also had an inverse relationship, in that athletes who reported less negative rapport reported higher scores for positive developmental experiences. Although this study did not investigate details regarding negative behaviors, Holt and colleagues (2009) found that coaches who overemphasized winning, used social comparison had athletes who reported increased feelings of stress. Furthermore, Gould and colleagues (2012) found that athletes who perceived more negative rapport with their coaches, scored higher on indicators of negative experience such as stress, negative group dynamics, and exclusion. The findings from the current study in tandem with evidence from previous research suggest that perceived rapport (i.e., relationship or connection) with a coach may be a substantially influential factor in the link between coach behavior and the development of life skills among athletes within a competitive team sport context.

In contrast to the results of Coatsworth and Conroy (2006), this study did not find differences in perceptions of coaching behavior and developmental experiences between younger and older adolescents. Black and Weiss (1992) only detected a minor difference with regard to perceived outcomes (one variable, “choice”) between middle and high school age athletes, however, the lack of discrepancy in this study may be due to uniformity of the coaching staff

with regard their philosophy on life skill development and hence their propensity to engage in similar positive coaching behaviors and produce similar experiences for their athletes. It may also be that the age difference between the two groups was not great enough to detect a true difference. For instance, Coatsworth and Conroy (2006) found that age moderated the effectiveness of the coach training intervention, however, the groups spanned from age 11 and below to age 12 and above, whereas the age groups for this study were between 13-15 and 16-18. Younger youth are more likely to rely on adult feedback to form perceptions of their experience, whereas teenagers rely more on peer feedback, thus future research may benefit from examining the contribution of coach feedback and peer feedback at different ages.

In the present study, not only did results demonstrate a positive relationship between perceived coaching behaviors and developmental outcomes, but also coaches were able to describe the outcomes they thought were important to foster among their athletes. Similar to coaches in Strachan and colleagues (2011) and Gould and colleagues (2007), the coaches in this study desired to facilitate the development of interpersonal skills, provide opportunities to engage in initiative experiences, create supportive contexts for identity exploration and reflection, and facilitate the development of resilience. Coaches reported that for female athletes in particular, it was important to create an atmosphere that facilitated the development of self-confidence and gender identity. These outcomes have been echoed in previous research, wherein sport participation in high school was linked to higher self-esteem in college (Tracey & Erkut, 2002). Coaches' accounts of desired outcomes were relatively consistent with the developmental experiences reported by the athletes, which is an indicator of the validity of the results. For example, both reported experiences with initiative and identity as well as opportunities to engage in meaningful relationships and develop interpersonal or social skills. The alignment between

desired outcomes and reported outcomes also suggest that coaching strategies targeted to develop the identified life skills were (to some extent) effective for female athletes in this context.

In previous research, as well as the current study coaches, have indicated that participating in competitive sport builds desirable personal qualities in their players (e.g., Strachan et al., 2011), however, there is less evidence in the literature about what coaches did to build such life skills in their players. Although research into life skill development is increasing, it has yet to establish a central driving theoretical model to explain the process or a ‘curriculum’ for coaches to follow in order to develop life skills for young athletes. More recently, researchers have focused their investigations on this issue (e.g., Carson, 2010; Gould et al., 2007; Gould & Carson, 2010), striving to define a roadmap for coaches. This study explores that gap. The explanatory mixed methods design of this study advances previous research by linking formal measures of coaching behavior and developmental experiences to qualitative descriptions about the strategies exemplar coaches utilize to build skills among their players. Thus, the present investigation led to a relatively detailed description of coaching strategies that may be used to facilitate positive experiences and develop life skills among female athletes participating in competitive team sports.

Similar to the coaches studied in Gould et al. (2007) coaches were able to articulate a wide range of developmental objectives and intentional strategies used to achieve these goals. Coaches demonstrated an understanding and awareness of their role in developing psychosocial skills (as suggested by their coaching philosophies), which centered on personal development (i.e., developing life skills) as opposed to performance outcomes (i.e., winning). The coaches in this study also possessed an intentional plan for teaching life skills. They identified multifaceted teaching strategies to foster life skills such as engaging in direct dialogue about life skills,

modeling life skills, and providing opportunities for players to engage in active learning tasks that allowed them to practice and master a life skill with the support and guidance of an adult mentor. These coaching strategies reflect characteristics of effective youth development programs in the current literature (e.g., Petitpas et al., 2005) and coaching behaviors detailed in previous studies (e.g., Gould et al., 2007; Strachan et al., 2011). For instance, the success of the First Tee Coach program was attributed to training coaches to emphasize active learning, use a mastery orientation that values self-improvement over social comparisons, and construct an atmosphere that empowers youth through appropriate mentoring relationships (Petitpas et al., 2005). Finally, supporting previous findings, coaches in this study stressed the importance of establishing a genuine, trusting, and caring relationship with players, which was perceived to provide a foundation for the effectiveness of all other coaching strategies.

Supporting statements made in Camire and colleagues (2011) and Harrist and Witt (2012) studies, coaches demonstrated a well thought out coaching philosophy that prioritized the personal development of young athletes. Coaching philosophies were grounded in two concepts: the desire to have a positive impact and the view that “winning was the product of a good process” that engendered life skills among young athletes. In other words, coaches valued the development of the whole person through sport over performance outcomes such as winning, but still recognized the importance of winning to the raw nature of sport. In a context predicated on competition and performance based evaluations, coaches in this study defined success in a way that deemphasized winning, which is an important strategy in reducing the stress and negative experiences associated with the competitive nature of sports (Coatsworth & Conroy, 2009; Holt et al., 2009). By deemphasizing winning coaches showed players that they were “not just pieces on the chess board,” but cared for as people beyond their physical talent, which contributes to

building a mastery oriented climate as well as positive rapport with athletes. According to the coaches in this study, a coach with a philosophy centered around personal development demonstrates equitable treatment of their players (i.e., does not only play the best “athletes”), demonstrates emotional control (i.e., not lose their temper when losing a match), and takes the time to teach, model, and create opportunities to practice life skills rather than solely focusing on the physical and technical skills of the sport. Similar to previous research (e.g., Holt et al., 2009) coaches also focused on effort, persistence, teamwork, and sportsmanship and used self-improvement or character development as a measurement of success in order to promote a mastery oriented climate. Review of research on coaching effectiveness supports these findings that suggest that deemphasizing winning or ascribing to a mastery-oriented climate facilitates positive outcomes in sport (e.g., Coatsworth & Conroy, 2009; Gould et al., 2012; Holt et al., 2009).

Although focusing on life skill development was a priority, coaches also recognized that it had to be balanced with an appreciation that in sport winning is valued, motivating, and reinforcing. This finding was unexpected and not discussed in the literature reviewed for this study, however, as one coach pointed out, setting achievement goals and being competitive are real world skills that are valuable in various work settings. By solely focusing on life skills, a coach may inhibit the development of physical and technical skills, consequently decreasing the youth’s sense of competence and motivation gained from performance feedback. Therefore, one cannot completely disregard the importance of winning or value of teaching young athletes to be competitive as it is an important life skill and crucial for success in an environment such as Volleyball Club. Although it appears paradoxical to value winning while promoting a philosophy focused on personal development in that teaching life skills may take away from the

development of tactical and technical skills of an athlete or visa versa, there is evidence that seamlessly incorporating life skill lessons into competitive sport environments can produce success in both domains. For instance, the success of the SUPER positive youth development program demonstrated that when life skill training is embedded in sport practices appropriately, life skills can be learned in competitive settings without sacrificing the enhancement of sport performance skills (Papacharisis et al., 2005; Goudas et al., 2006; Goudas & Giannoudis, 2008). Evidence from the current study also showed that competition training and life skill training can be complimentary as coaches in this study had winning records, illustrated coaching strategies aimed to promote life skill development, and had players who reported positive developmental experiences.

Balancing the demands of a highly competitive sport environment and embedding life skill development within such an environment is challenging, however, the coaches in this study were able to identify intentional ways in which they incorporated life skill learning into their practices. In support of the strategies identified in Beck's (2009) study, coaches spoke to their players directly about life skills and explained how they applied to different settings. Gould and Carson (2010) also found that explicit discussions about transferring skills to other domains and using teachable moments in practice (explaining and providing athletes with concrete examples of situations and contexts in which life skills can be transferred) were key to success. Many of the instructional strategies discussed by coaches in this study were identified as occurring through the process of competition (i.e., practice) where coaches emphasized skills and values such as hard work, teamwork, resilience, and time management. Coaches' felt that these skills would not only help the athlete be successful in volleyball, but could be transferred to other life situations and therefore, coaches were explicit with their players about why they were important.

For instance, coaches recounted discussions with their players about how learning to work with others (i.e., teamwork) is a life long skill that is crucial in many careers and relationships. By giving athletes concrete examples of how a skill could be applied on the court and in contexts such as college or a future career, coaches helped make the skills relevant and important for the athlete increasing the likelihood for that skill to be internalized and utilized in multiple contexts.

Similar to social cognitive theories of learning (e.g., Vygotsky, Schunk) coaches in this study believed skills were learned through both active learning (i.e., practicing) and vicarious (i.e., observational) learning, that is learning through doing and learning through observing others (Zimmerman, 2001). Previous research on life skill development through sport participation (e.g., Danish et al., 2003; Gould & Carson, 2008) also suggested that teaching mental and physical skills through direct and active teaching (such as providing opportunities for practice with scaffolding) as well as indirect teaching or modeling were most effective. Moreover, social cognitive theories of learning support the notion that an individual hones their skills best through guided practice paired with corrective feedback and instruction from a more knowledgeable other (Zimmerman, 2001). Coaches in this study discussed modeling prosocial responses and emotional control in situations where they made mistakes or dealt with interpersonal conflicts with the belief that given an appropriate model, players would be more likely to engage in those behaviors when faced with similar situations. Theory tells us that modeling is most effective when there are similarities between the observer and the model and the model is rewarded, thus coaches can expect to have the most success with observational learning of life skills by creating similarity and mutual respect between themselves and the athletes (i.e., “getting on players levels”) and reinforcing life skills demonstrated by model peers.

In addition, modeling may also be a particularly powerful strategy for female coaches to utilize when coaching female athletes.

Coaches in this study described providing opportunities for their athletes to engage in activities on and off the court that were intended to build skills such as leadership, communication, and resilience. For instance, coaches provided opportunities for their athletes to take on leadership roles in practice (e.g., calling timeouts, talking during team huddles, deciding on drills for practice, etc.) and expected athletes to take care of their own practice equipment, thus fostering responsibility and accountability. Coaches developed resilience by creating adversity in practice via physically and mentally grueling, competitive drills and supporting the athlete in overcoming these challenges. Active learning strategies are supported in the literature on extracurricular activities wherein experiencing challenge and failure in a supportive context of peers and adults facilitated opportunities for adolescents to develop resilience, agency, and initiative (Eccles et al., 2003; Larson, 2000). Review of previous studies in the sport context also supports the finding that having players be a part of the learning process (i.e., active experiential learning) was more effective because practicing skills with the support and guidance of an adult allows for the player to receive feedback and gain competence in utilizing a skill (Camire et al., 2011; Harrist & Witt, 2012). As Brunelle et al. (2007) concluded, the most important factor in developing an enduring skill, value, or attitude such as prosocial values, is having the opportunity to practice, thereby gaining the competence and confidence to integrate the learned skills in other settings.

Finally, the life skill gains reported by athletes in this study were associated with whether coaches were perceived to have developed positive versus negative relationships with their players. Results showed that as perceptions of positive coaching behaviors increased and

negative rapport decreased, athletes' reports of positive developmental experiences increased as well. Qualitative evidence from this study also supported the role of a positive coach-athlete relationship as the foundation from which to teach life skills. For instance, C4 epitomized the mediating role of a the coach-athlete relationship stating, "I think it's a foundational notion and why this matters and why it can be so powerful because of the human aspect and the relationship." The link between positive coach athlete relationships and positive outcomes is substantiated in previous research by Gould and colleagues (2007) in that coaches felt that developing relationships with their athletes was a critical factor in the success of life skill development among players. Likewise, the life skill gains seen among athletes in Gould and Carson's (2010) study were associated with perceived coach-athlete relationships, confirming previous findings (Gould et al., 2006; Gould et al., 2007) about the importance of positive relationships as a mediator for positive developmental outcomes through sport. Positive youth development programs and coach training programs also delineated the significance of establishing relationships as a building block for fostering psychosocial development (Smoll et al., 1993; Petitpas et al., 2004).

Along with substantiating the importance of the coach-athlete relationship, this study advanced current research by identifying strategies to develop a genuine and caring relationship. Coaches identified several strategies to support the development of an effective coach-athlete relationship including showing genuine care for their players as people, using humor, and demonstrating fair and equitable treatment toward each player. The relationships illustrated by the coaches in this study embody the characteristics in Jowett's 3C + 1 model of effective coach-athlete relationships (Jowett, 2007; Jowett & Meek, 2000; Jowett & Ntoumanis, 2004). This model posits that effective coach-athlete relationships are characterized by closeness,

commitment, complementarity (i.e., reciprocity), and co-orientation. These qualities were highlighted when the coaches indicated that respect, trust, and care were important in their relationships with their players.

One of the most cited methods for promoting closeness and commitment in the relationship between an athlete and a coach was showing genuine care. Coaches demonstrated that they valued their players for more than what they could contribute on the court by showing interest (i.e., asking about) and investing in (i.e., attending) activities their athletes were involved in outside of volleyball. Coaches could also show that they cared for their players as people (not just as volleyball players) by allowing every player equal opportunities to contribute to the team and participate in games, practices, and skill mastery. If a coach only played their best athletes, the message would be that only talented players who could help the coach win games had value and coaches in this study rejected that notion. Coaches recognized that the message that talent equals value could be detrimental to an individual's development of self-confidence, identity, and sense of competence as well as dissolve the coach-athlete relationship. Coaches also strived to create an atmosphere for every player to feel comfortable being themselves and safe in taking risks with regard to identity development, thereby facilitating opportunities for personal growth and the development of confidence, which also likely contributes to a stronger relationship.

Establishing a relationship founded on genuine care for their players as people, also allowed for critical performance feedback to be perceived more positively and taken as purely a reflection of their performance and not an attack on their personalities. This may be particularly important when coaching female athletes as research has shown that female athletes prefer positive, encouraging feedback, and praise after successful and unsuccessful performances (Allen & Howe, 1998; Black & Weiss, 1992). Positive coach-athlete relationships also helped to

facilitate the development of skills by influencing a player's motivation and coachability. In other words, it opens the door making athletes more receptive to what coaches are teaching whether it is a physical skill or a life skill. Coaches also indicated that they used humor with players to help break barriers of the hierarchical structure between coaches and athletes and to encourage their athletes to be themselves. The positive impact of providing opportunities for fun and humor on forming a healthy relationship and thereby impacting life skill attainment is corroborated in previous research as well (e.g., Harrist & Witt, 2012).

Research shows that there is a link between participation in youth sport and beneficial outcomes and that coaching behavior is a crucial factor in understanding this link, however, there are a number of barriers even exemplar coaches face with regard promoting life skill development within a competitive sport context such as Volleyball Club. In previous studies (e.g., Gould et al., 2007) coaches identified player characteristics such as immaturity and lack of responsibility as barriers to successful transfer of life skills. In response to these challenges, coaches reported that they maintained expectations for personal responsibility and held athletes accountable to high standards. Although the coaches in this study did not identify 'character' related barriers, coaches did have similar expectations of their players (e.g., responsible for equipment, held accountable to rules and standards such as cleaning up the bench, shaking officials hands, lining up bags, etc.), which were thought to instill values such as discipline, respect, and sportsmanship.

The challenges identified by coaches in this study were often external and systematic. For instance, coaches cited constraints on the amount of time spent with athletes compared to other influential adults mentors (i.e., parents), technology (i.e., phones), and the consequence of current social norms (i.e., social media) as barriers to their efforts to instill life skills among their

players. The increase in use of technology to communicate (i.e., texting, email) was viewed as a barrier to developing face-to-face social and communication skills. Although team sports demand social interaction on the court (where cell phones are not accessible), coaches described strategies to facilitate teammate interaction off the court by restricting cell phone use during any team functions (i.e., team dinner) and modeling appropriate interpersonal skills with colleagues. The media's portrayal of femininity was also perceived as a barrier for young female athletes in that it produced a conflict between developing an identity that incorporated being strong, competitive, and athletic and an identity that reflected a traditional view of femininity. Coaches believed that establishing an environment that encouraged players to be themselves, allowed opportunities to be competitive and recognized for physical competence, and incorporated characteristics such as strong, capable, and aggressive into the fabric of their social norms would give female athletes a safe place to explore and develop a healthy self-concept among peers. The literature on female athletes supports the notion that when positive messages about body image and physical competence are incorporated into sport during adolescence, female athletes show increases in self-esteem later in life (Richman & Shaffer, 2000; Tracey & Erkut, 2002).

The most prominent barrier with regard to facilitating life skill development identified by coaches was the impact of parent involvement and the perception that parents often reinforced different values with regard to sport participation. The perception of "problem parents" is corroborated in part by previous research about the influence of parents on an athlete's motivation, perceived competence, goal orientation, prosocial behaviors, and enjoyment of sports (Anderson et al., 2003; Babkes & Weiss, 1999; Gould et al., 2008; White, 1996). Research shows that parents who emphasized winning, financial gain (i.e., scholarship money), or showed negative responses to performance were more likely to have a negative impact on the athlete's

goal orientation, to decrease enjoyment (leading to burnout), and to create stress. The literature also indicates that parents who emphasized learning, hard work, and enjoyment, were supportive and positive, and demonstrated emotional control were more likely to increase mastery motivation, enjoyment, and self-competence in their children.

Coaches' beliefs about the positive and negative impact of parental involvement in this study echoed findings in the literature. For instance, one coach stated, "it's one way or the other, I don't think it's ever a neutral effect of the parent. I think you either have support from the parent or you have opposing messages and then you have no strength or power with the kids." The majority of coaches in this study felt that they were "battling" those parents who did not value personal development. When parents and coaches reinforced different messages about the value of learning life skills through sport, coaches felt that their lessons would not carry over across contexts. In other words, if coaches were trying to teach their players to value hard work and character development, and parents were simultaneously conveying to their children to value winning, playing time, physical or technical development then the coaches' efforts to develop life skills were undermined. Coaches also believed that the more time a player spent with their parents within the sport setting, the less time they spent interacting with peers developing key social skills and the less likely they were to engage in initiative experiences to develop skills such as autonomy, leadership, and responsibility. Therefore, most coaches shared the opinion that involvement of parents should be minimized.

Although many more coaches held the belief that parents were barriers, in an effort to garner parent resources as positive influences some coaches in this study made a point to communicate more with parents and invite them to be a part of the developmental process in sport. Rather than minimizing contact, coaches sought to keep parents informed and involved in

the process (i.e., generate parent buy-in) as a way to promote life skill development across contexts. From a bio-psycho-social perspective, aligning influential individuals within the multiple contexts in which a child lives (i.e., sport, home, school, community) ensures a stable and positive developmental trajectory. By aligning with parents the likelihood of parents reinforcing the same message as the coach increased, thereby increasing the potential for athletes to learn life skills and utilize them across settings. Similar to the coaches in Gould et al. (2007), the coaches who sought to align with parents demonstrated an understanding of the power of synchronizing multiple points of intervention in order to strengthen and broaden their sphere of influence. More research about the influence of a collaborative approach between parents and coaches would be beneficial in helping youth sport organizations ensure adaptive parent involvement and therefore maximize the program's effect on youth development.

Implications for Theory and Practice

Leadership models have often been applied to sport settings with the intention of defining coaching and explaining how coaching behavior influences athlete outcomes. Most definitions of leadership involve a dynamic, relational, strategic, and complex social process of influence (Vella et al., 2010). Similarly, sport coaching has been defined as a complex social process composed of and maintained by reciprocal and interpersonal relationships that are affected by certain contextual constraints. Smoll and Smith (1989) proposed a cognitive mediational model of coach leadership that stipulates that the “ultimate effects of coaching behaviors are mediated by the meaning that players attribute them.” Essentially, perception (cognitive and affective processes) is viewed as the filter between explicit coaching behaviors and players' subsequent attitudes toward their coach and their sport experience. More specifically, this model stipulates that within the larger context of the athletic situation, coaching behaviors and athletes'

perceptions and recall of coaching behaviors contribute to athletes' evaluations of the outcomes gained through their sport experience (Smoll & Smith, 1989).

The current study's findings support Smoll & Smith's (1989) mediational model in that athletes who perceived their coaches to engage in more positive behaviors also rated their sport experience as positive and reported more positive developmental outcomes. More over, results of this study suggest that the player's perception of their coach and the coach's behaviors are likely influenced by the coach-athlete relationship. Therefore, the present study builds on the current model by suggesting that the coach-athlete relationship functions as a filter through which athletes form perceptions of coaches' behavior. Taking this point further, the positive coaching behaviors (essentially all behaviors except negative rapport) that were related to positive development experiences in the present study, are most likely explained by the fact that when athletes' perceive a positive relationship with their coach (i.e., they like their coach and believe their coach likes them), they are more likely to perceive their coach's behaviors favorably and are more likely to view their sport experience positively and report positive developmental outcomes. Thus, the coach-athlete relationship may serve as the ultimate groundwork through which athletes form their perceptions about their coach (and sport experiences), thereby rendering the coach's behaviors as effective or ineffective with regard to developing life skills. Along with advancing the explanatory model, the present study also illustrates specific actions or techniques a coach can use to structure the environment to facilitate a healthy coach-athlete relationship and foster positive perceptions and developmental outcomes.

Understanding the process of how coaching behaviors can have a tremendous impact on athletes' psychosocial development can be further enhanced by briefly exploring a theoretical foundation to organize coaching strategies. Deci and Ryan's (1985, 2000; Ryan & Deci, 2000,

2009) Self-Determination Theory (SDT) may assist in organizing coaching behaviors and strategies in a meaningful way. Briefly, SDT suggests that individuals will engage more deeply in activities perceived to be self-driven or self-determined. An activity is perceived as self-determined if it fulfills an individual's need for relatedness, autonomy, and competence. By structuring the sport environment and enacting strategies to meet these needs, a coach can generate athlete investment (i.e., self-determination), thereby increasing the power of lessons learned during sports. Similar to Mageau and Vallerand's (2003) proposed model, coaching strategies can be categorized into behaviors that support autonomy, competence, and relatedness. For instance, the motivational climate coaches impose on the sport environment (i.e., mastery orientation) and instructional strategies (e.g., direct instruction, modeling, active learning, etc.) provide athletes access to the necessary information and experiences to gain skills and therefore develop a sense of competence. Any strategies that engineer a climate of positive peer interaction and identity exploration, such as imposing positive group social norms or planning group activities, allows the athlete to feel a sense of belonging and connection to their peers. In addition, by building a positive coach-athlete relationship, a coach helps to fulfill the athlete's sense of relatedness. Finally, those strategies used to facilitate independent decision-making, responsibility, and leadership skills (i.e., initiative experiences) provide players the opportunity to develop autonomy.

From an even broader perspective the present study illuminates concepts from Bronfenbrenner's Ecological Systems Theory of development (Bronfenbrenner, 1986). This theory suggests that the multiple systems in which an individual lives, such as school, sports, and the community interact and over time to influence development. Furthermore, the individuals (e.g., parents, coaches, friends, etc.) that interact with the athlete across multiple systems have a

significant impact on development. Thus, to truly make change intervention needs to occur at multiple levels and a consistent message must ripple through all the interacting spheres in which an athlete lives. In this study, the coaches' ideas about the consequences failing to align with parents and desire to invite parents to be a part of life skill development process reflects their deep understanding of the concept of multilevel intervention.

There is a substantial amount of evidence mounting to suggest that sport is a positive youth development context, and that the adults in leadership roles have a significant impact on the sport experience and the development of life skills among young athletes (e.g., Carson, 2010; Gould & Carson, 2010; Holt et al., 2009). With the prevalence of youth sports in the United States, the demand for coaches likely outstrips the resources for a community to have well-trained coaches leading every youth team. Thus parents, community members (who likely have other full time jobs), or simply older adolescents are stepping into those roles to meet this demand. Despite positive intentions, many coaches have not been given guidance, education, or training about how to balance the many responsibilities of being a youth sport coach. Coaches are responsible for teaching technical and tactical skills, ensuring physical and psychological safety, and addressing social and emotional needs, which is overwhelming even for a veteran coach. Consequently, there are many coaches who do not have the awareness, skills, or resources to foster the development of the whole person through sport.

Therefore there is a need to continue to develop standards for whole person coaching as well as opportunities for coaches to become better trained to promote principles of positive youth development. More organizations such as the Positive Coaching Alliance (<https://www.positivecoach.org>), whose mission is to provide all youth and high school athletes a positive character-building youth sports experience, need to continue to lead the charge in

developing standards and providing opportunities for youth coaches to become better educated in aspects of positive coaching (e.g., “The Double-Goal Coach,” who strives to win while also pursuing the more-important goal of life lessons through sports). Greater emphasis needs to be placed on what life skills can be promoted through sport and how these outcomes can be achieved using natural adult mentors. Coupled with this awareness, the myth of mere participation leading to positive growth needs to be debunked and coaches need to be provided with a road map or guided action plans for structuring environments and utilizing strategies that facilitate the growth of critical psychosocial skills.

The coaches from the present study illustrated several ways in which to incorporate life skill development into a competitive sport context that may assist in developing positive youth development guidelines for coaches involved in youth sport. For instance, coaches highlighted the importance of establishing a positive coach-athlete relationship with players in order to lay the groundwork for fostering life skills. By building a strong relationship predicated on trust, commitment, and a genuine care for the player’s personhood, coaches felt that their potential to impact their player was amplified. Coaches showed they cared by valuing the whole person (not just the talent an athlete possesses) and took interest in their players schooling and hobbies, facilitated opportunities for social interactions, and gave each player a contributing role on the team. Coaches incorporated opportunities for physical competence, promoted a healthy body image, and created a climate of peer acceptance and identity expression, which were particularly important for the development of sense of self-worth for female athletes. In order to promote learning and enjoyment, coaches constructed a mastery-oriented climate by emphasizing hard work, personal improvement, and teamwork rather than winning. For many teams, success was defined by their commitment to the process of personal development and demonstration of

strong character, core values, and life skills. While building a positive coach-athlete relationship and exhibiting a coaching philosophy grounded in personal development primes the context for life skill development, it is crucial that coaches implement a variety of teaching strategies within their practices to help their players internalize skills and use them across contexts.

Although explicit instruction on life skills and giving examples of applicability across settings is crucial in the process of developing life skills, this process should not be cumbersome for the coach or detract from the tactical and technical components of practice. Coaches in the present study, for example, did not take additional time to work through a curriculum or teach a lesson on life skills, but rather integrated life lessons into their practices through team norms and rules, finding teachable moments, and incorporating core values into team activities. As previous research has suggested (e.g., Carson, 2010; Danish et al., 2003), seamlessly integrating sport skill and life skill development has the highest potential to transfer skills across domains. For instance, in the present study lessons of responsibility, accountability, communication, and effort were promoted through team expectations. In addition, opportunities to take leadership roles in practice and competitive drills were used to teach players about overcoming adversity and facilitate conversations about resiliency. Coaches reinforced skills through peer models and recognized players for utilizing a skill within or outside the sport context. Coaches consistently modeled the types of behaviors they expected their players to demonstrate and shared stories of their own success and failures in using life skills. Group instruction and individual meetings were also utilized as opportunities to discuss the value or applicability of a skill in multiple contexts.

The results of this study identified several important strategies coaches can utilize in order to help facilitate the development of life skills, however, the next important step for

research is to develop and assess the effectiveness of coach training programs with various populations. In other words, researchers should strive to answer the question: can coaches be trained on the aforementioned strategies and are such training programs effective with regard to affecting players' psychosocial development? Evidence from Smoll and colleagues (1993) evaluative studies of their Coach Effectiveness Training program (CET) and evaluations of the Frist Tee Coach program (Petitpas et al., 2005; Weiss, 2008), suggest that coach training programs can be effective in changing coach behavior and that the behavioral differences result in a significant increase in life skills among athletes. In addition, Weiss and colleagues (e.g., Weiss, 2008) longitudinal studies illustrates that a program that trains coaches to be activity-based and mastery driven with regard to teaching life skills and that empowers youth through mentoring relationships is effective in transferring life skills to salient domains and building skills that are durable across time. More research is needed to evaluate such coach training programs and to find innovative ways to provide coaches access to educational opportunities (e.g., Positive Coaching Alliance) as some youth sport programs may lack the financial resources and time to implement program with the efficacy to produce change.

Limitations and Future Directions

This study examined the relationship between perceived coach behavior and perceived developmental experiences as well as the strategies exemplar volleyball coaches used to facilitate the development of life skills in their players. Although the findings helps fill a gap in the literature with regard to describing specific coaching strategies targeted at developing life skills, the use of purposeful sampling, the scope of inquiry, and research design limits the generalizations that can be made to other more diverse contexts. What follows is a discussion of the limitations of the current study as well as propositions for future research.

While the sample is specific to female volleyball players and exemplar coaches, the findings may be generalized, with caution, to general coaching situations in team sport settings. Generalizations cannot likely be made, however, for both male and female athletes, and for coaches and athletes at every level of sport (i.e., recreational or professional). For instance, previous research on gender effects and sport participation indicated that females preferred more supportive behavior, frequent feedback, and a democratic leadership style (Sherman et al., 2000) compared to male athletes. Thus, similar strategies perceived to be effective in this study (e.g., promoting healthy body image), may not be effective across male athletes. It should also be noted that most coaches in this study had only coached female athletes, and thus could not draw comparisons across gender. Therefore, it is assumed, based on the demographics of the population (exclusively female) that the identified coaching strategies are more effective for females. More time should be spent in future studies examining coaching strategies as it relates to coaching female athletes in particular.

Another possible limitation related to the demographic make up of sample was the homogeneity of the sample with regard to race and the educational level of parents (a proxy for social economic status). In this study the majority of the participating athletes were Caucasian and from middle to upper class families, and the coaches were from similar backgrounds. Although we know from the literature on observational learning that similarities between learners and models increases the likelihood for observers to view the skills demonstrated by the model as important, thereby increasing learning of those skills; it would be important to investigate the impact of demographic differences between coaches and athletes on the perceptions of coaching behavior or the coach-athlete relationship (e.g., male coach-female athlete dynamics versus female coach-female athlete dynamics). The homogeneity within

groups (i.e., teams) responses on measures of coaching behavior (as measured by the intraclass correlation) also impacted the validity of the statistical tests. Future research should consider using hierarchical linear modeling to account for the nested structure of the data.

The coaches in this study were diverse with regard to years of coaching experience (ranging from 4 to 25, with an average of 16 years), however, future research may consider contrasting the strategies used by novice versus veteran coaches and the impact on athlete outcomes, thereby measuring the effect of coaching experience on participatory outcomes. In addition, the coaches in this sample were all successful with regard to their win-loss record and demonstrated behaviors associated with positive developmental experiences; however, it would be interesting to assess if coaches who did not have successful seasons were equally effective with regard to teaching life skills, changed their coaching behaviors with regard to their own perception of the caliber of their team, or if athletes' perceptions of coaching behaviors changed based on team performance. One may expect that athletes' who experience a losing season may rate their coaches less positively and perceive their sport experience to be more negative, or that coaches who experience a losing season may demonstrate different coaching behaviors. This perception, however, likely depends on the focus of the sport organization and the coach. For instance, if the coach deemphasizes winning and values personal development (like many of the coaches interviewed at Volleyball Club), then the team's record should have no impact on coaching behaviors and athletes will likely still perceive experience positive coaching behaviors and positive developmental experiences.

In order to examine if win-loss record is associated with differences in perceived coaching behavior a supplemental analysis could be conducted using the current data set. The win-loss records were obtained for each participating team and coaching behavior profiles were

created for all 14 eligible coaches and a visual scan of the data shows no distinct pattern. For instance, the seven coaches who had lower winning percentages, below 63 percent (only one of the 14 eligible coaches had a losing record below 50 percent), were ranked 3rd, 5th, 8th, 9th, 11th, 12th, and 13th in the overall coaching behavior profile rankings. The seven coaches who had higher winning percentages, above 63 percent, were ranked 1st, 2nd, 4th, 6th, 7th, 10th, and 14th. In order to examine if team record had an impact on perceptions of coaching behavior test a regression analysis could be conducted to using each team's record as the independent variable and coaching behavior or developmental outcomes as the response variables. Similar analyses could be conducted in future research as well and extended to measure the impact of win-loss record on life skill development in general, or the impact on specific factors such as self-esteem, identity development, or leadership.

There are still questions about specific strategies that are likely to be most effective with different populations and under different conditions. Although results from this study suggest that a sport program can be competitive and focused on the development of life skills simultaneously, another line of research lies in investigating the impact of type of sport programming on coach behavior and athlete outcomes. There are many similarities in developmental outcomes between positive youth development programs and sport in general, however, sport programs vary greatly. Youth sport programs can vary from purely recreational (i.e., YMCA) to highly competitive professional leagues, consequently the philosophy of sport programs can vacillate from focusing solely on youth development to only desiring to produce professional level athletes. For example, the personal development philosophy and competitive level of this organization afforded coaches in this study the opportunity and environmental resources to help their athletes with personal development, thus it is not surprising that most

coaches were able to facilitate positive developmental experiences while also being successful on the court. Thus, future research could benefit from a more diverse sample of coaches and athletes in order to investigate the effect of the level of the sport program on coaching behaviors and subsequent athlete outcomes. It would also be enlightening to evaluate sport programs from a systematic perspective, investigating if incorporating different youth program characteristics, such as NRCIM's eight positive youth development characteristics, have an impact on the sport environments potential to foster life skills.

The method for data collection, that is self-report and retrospective (i.e., survey instruments and interviews), may have impacted the validity of results. Both survey measures and interviews rely on the participants' truthfulness and accuracy in recalling the information requested and these methods are subjective and reflect the participants' perceptions of the phenomena, rather than objective measures. In addition to using a more objective approach to measuring coaching behavior (i.e., observing coach behavior in practice), there is also a need to develop a psychometrically sound instrument to assess life skill oriented coaching behavior. The current study used scales from several different instruments and added items that were thought to assess life skill coaching behaviors, which impacted the validity of the instruments. Qualitative information from the current study could be used to create a measure that assesses coaching behaviors associated with positive and negative developmental outcomes. The creation of a coaching behavior measure has important research implications and practical utility with regard to evaluating coaching behavior. For instance, this instrument could be used to provide valuable feedback to individual coaches and youth sport programs and help direct coach training efforts in order to produce maximally positive developmental outcomes for athletes.

Although more objective methodology could be used in future studies, one should not discount the value of the individual's perception of their experience. For instance, evaluative studies (e.g., Smith & Smoll, 2007) of cognitive meditational model of adult leadership behaviors in sport found that the athlete's perceptions were closer to overt measures of coaching behaviors (when compared to the coach's rating of their own behaviors), which implies that the athlete's perceptions are likely a more accurate measure of coach behavior and participatory outcomes. Furthermore, the qualitative portion of this study ascribed constructivist framework, which posits that individuals develop subjective meanings of their experiences; thus the research methods purposefully relied on their constructed view of their reality and the phenomena of coaching behavior. In addition, qualitative data is best understood through the reconstruction of participants' subjective views and interpretations of their relevant experiences.

Although this study was exploratory in nature, another limitation of the study was the broad scope of the factors investigated. This study investigated eight coaching variables and seven developmental experience variables; therefore, it lacks the depth associated with exploring a more limited number of variables. Based on the results of this study, it would be beneficial for future research to hone in on one factor such as the impact of the coach-athlete relationship as a mediating variable between sport participation and life skill outcomes. Additionally, the line of inquiry used with coaches covered a broad range of topics (e.g., desired outcomes, coaching philosophy, coaching strategies, barriers, etc.), limiting the depth of the investigation. Given the results of this study, which provided some insight into specific strategies to promote transfer into settings such as school, community, job, and career, future investigations should assess the effectiveness of these coaching strategies in a more systematic manner.

Finally, there is still little known about what skills transfer across settings and what strategies can be used by coaches to best ensure durability over time. While these coaches consistently talked to their players about the importance of life skills in other settings and encouraged athletes to apply these skills across contexts, this does not mean transfer actually occurred. Coaches in this study provided anecdotal evidence that indicated that athletes utilized life skills taught while participating on a team at Volleyball Club later in life (i.e., college), however, transfer of skills was difficult to measure. To assess if strategies used to transfer life skill outside of sport have an impact off the court, athletes could be observed in other settings and informants (e.g., teachers, employers, friends, etc.) from various contexts could be interviewed or surveyed about life skills. For instance, skills associated with school achievement (e.g., goal setting, time management, responsibility, etc.) could be measured directly via surveys about study skills or indirectly through indicators of a change in study skills (i.e., grades).

The majority of research on sport participation and life skill development is descriptive and correlational at best. Although these studies (i.e., random assignment to control or treatment conditions) are harder to conduct, quasi-experimental or experimental designs could be used to study the effect of training coaches (e.g., Smith & Smoll 1997; Smoll et al., 1993) on strategies to develop and transfer life skills to other settings. Longitudinal studies could also be helpful to assess the development and the durability of skills overtime, as well as investigate the athlete's perception of the process of life skill development through sport. Weiss and colleagues (e.g., Weiss, 2008) began longitudinal evaluation research with The Frist Tee program which has shown that a sport-based (golf) youth development program designed to teach life skills and positive personal/interpersonal qualities is successful in that life skills were retained over time (three year period) and transferred into other domains (e.g., school, family, friends, job, college,

career, etc.). To date, longitudinal research has been limited, but promising, thus more research endeavors should aim to utilize these methods.

With regard to continuing the current study, a longitudinal approach combining qualitative and quantitative methods could be used to measure life skills as athletes matriculate through the sport program. Similar to evaluative studies of the First Tee program, interviews with parents, players, and coaches could be conducted to qualitatively assess the developmental outcomes associated with participation at Volleyball Club at the beginning and culmination of the athlete's Volleyball Club career (e.g., examine if themes remained the same over time). In addition, the YES-2 measure could be administered at the end of each club season or when the players graduate from the program at 18 years old to quantitatively track how developmental outcomes (i.e., life skill) changed over the course of their involvement in the program. Similarly, players could evaluate coaches at the end of each season using a measure of coaching behavior (such as the proposed life skill coaching behavior measure that could be created from the qualitative results from this study). A coaching profile would be developed overtime, which may help the organization evaluate their coaches and target interventions (i.e., professional development opportunities) to increase positive coaching behavior.

Conclusion

Participating in sport has the potential to help youth adopt positive values and provides opportunities to develop life skills that transcend the court or field. Positive outcomes, however, do not emerge automatically. Overall, findings from this study show that sport teams are unique developmental contexts in which athletes' physical and psychosocial competence (i.e., life skills) develop and that perceived differences in coaching behaviors (despite exposure to a cohesive sport environment) can create variation between teams that support or inhibit the development of

life skills. In this study, athletes reported and coaches described similar positive developmental experiences including experiences of identity development, opportunities to practice leadership, responsibility, and accountability and opportunities to develop interpersonal skills and form meaningful relationships with adults and peers. Both coaches and players also reported coaching behaviors including preparing athletes for competition, establishing positive rapport with athletes, demonstrating democratic and supportive leadership style, creating a mastery oriented atmosphere focused on personal development, and coaches demonstrated using a variety of strategies to teach life skills that could be used within and outside the sport context. Generally findings confirmed a significant relationship between perceived coaching behaviors and developmental experience, showing that positive coaching behaviors and the development of a positive coach-athlete relationship were associated with indicators of positive developmental outcomes among female athletes participating on a competitive team sport.

Above and beyond finding a link between the perceived coaching behaviors and developmental experiences (i.e., development of life skills), this study provided a robust description of the strategies coaches utilized to facilitate the development and transfer of life skills to domains outside of sport. It is well documented in the positive youth development literature that positive outcomes in sport evolve from a genuine and intentional interest in personal development and quality relationships between mentoring adults and youth. Consistent with this literature, coaches understood the importance of having a coaching philosophy that values personal development (i.e., mastery orientation) over performance outcomes without underappreciating winning within the context of competitive sport. Coaches' also utilized intentional direct and indirect teaching strategies facilitate the development of life skills and enhance the potential for transfer across domains. For instance, coaches talked to their players

individually and during team practices about the application of life skills to other contexts, consciously modeled expected behaviors, reinforced skills through high expectations, and allowed for players to practice life skills with the support and guidance of a caring adult. Coaches also believed that establishing an environment that encouraged players to be themselves, allowed opportunities to be competitive and recognized for physical competence, and incorporated characteristics such as strong, capable, and aggressive into the fabric of their social norms, were particularly important for female athlete development. For both athletes and coaches a positive coach-athlete relationship founded on genuine care for each other as people beyond their role (i.e., coach or player) within the sport context was associated with positive developmental experiences. Most importantly the coach-athlete relationship was viewed as the groundwork for facilitating life skills and the filter through which athletes formed their perceptions about coaching behavior and their sport experience. Thus, this study posits that the relationship between coaching behaviors and positive developmental outcomes reported by athletes is highly influenced by the coach-athlete relationship, and encourages future studies to continue to investigate this relationship. In sum, the findings from this study highlight the importance and effectiveness of utilizing a purposeful and relationship-based approach in order to facilitate the development of life skills among adolescent female athletes in a competitive sport setting.

APPENDIX A: RECRUITMENT LETTERS

**Exploring the Relationship Between Coaching Behavior and Developmental Outcomes
Among Adolescent Female Athletes in Competitive Sport**
Student Athlete Recruitment Form

Dear Student Athlete,

I am conducting my dissertation research project to examine the development of positive outcomes and life skills among female athletes in a competitive sport setting. I would like to offer you the opportunity to take part in my study aimed at promoting the development of positive competitive sport experiences and the creation of guidelines to help coaches foster personal and physical development among young athletes.

I believe, and research shows, that participating in sports develops student athletes' physical, behavioral, social, and emotional skills, abilities, and values. Therefore, I am interested in studying various factors that sports provide (e.g., supportive relationships, safe environment) that bring about the positive outcomes such as the development of initiative, goal setting and teamwork skills). One factor that influences the potential benefits of sport participation is the quality of coaching, so I also want to know about the role coaches play and the behaviors they engage in that help to develop these beneficial outcomes.

To make my project a success, I need your help! You are the expert! Student athletes on any team from ages 13-18 are allowed to participate. I will be asking you to complete several surveys (20-30 minutes to complete) during practice. One asks about the experiences and life skills you have gained from participating on a Triangle team this season and the others ask about the behaviors and actions of your head coach. You will also be asked to provide some information about yourself. Participation is completely voluntary, your name will not appear on any surveys or written reports, and I will make every effort to ensure your responses are kept confidential.

If you are interested in participating in this research project please complete the attached athlete assent/consent form and have one of your parents complete the parent permission form and return them to your coach by _____. If you have questions or concerns about the purpose of this study or your role as a participant, please contact me at (352) 339-5838 or jkeroack@live.unc.edu or contact my Dissertation Chair, Dr. Steve Knotek, at sknotek@unc.edu.

Thank you very much for your consideration, I look forward to hearing back from you!

Sincerely,
Jessica Keroack

**Exploring the Relationship Between Coaching Behavior and Developmental Outcomes
Among Adolescent Female Athletes in Competitive Sport**
Coach Recruitment Form

Dear Coach _____,

Congratulations! You have received this letter/email because you have been selected as an exemplar head coach who demonstrates coaching behaviors that are associated with facilitating the personal growth of your players.

I am conducting my dissertation research project to examine the development of positive developmental outcomes and life skills among female athletes in a competitive sport setting. I believe coaches like you are not only critical to the success of these young women on and off the court, but you can also provide important information regarding the types of skills athletes are developing (e.g., initiative, positive identity, goal setting and teamwork skills) and the most effective strategies for developing and facilitating the transfer of these skills outside the sport setting (e.g., school, careers, communities). It is my hope that the information gained from this study, with your assistance, will help inform professional development for coaches and the establishment of best practices for youth sport coaches in regard to creating competitive sport environments that maximize physical as well as personal development.

In order to make this project a success, I need your help! If you would be willing to take part in my study your involvement would include:

- Individual interviews with you about your coaching philosophy and the strategies you use to build and transfer life skills among your student athletes. Basic demographic information will also be collected (e.g., years coaching, credentialing) and you may be contacted for follow up questions, participation is voluntary. Interviews will take approximately 60-90 minutes at a time and place of your convenience.

I recognize that you are most likely to have a busy schedule, so I want to make your involvement as convenient as possible (e.g., interviews will be scheduled at times and locations convenient for you). If you would be interested in participating in my study please complete the following form to indicate preferred times and places for interviews and the best way to contact you in the future. If you have further questions or concerns about the purpose of this study or your role as a participant please contact me (352) 339-5838 jkeroack@live.unc.edu, or my Dissertation Chair, Dr. Steve Knotek, at sknotek@unc.edu.

Thank you very much for your consideration, I look forward to hearing back from you!

Sincerely,
Jessica Keroack

In order to schedule interviews please indicate the following.

NAME: _____

Preferred contact method(s):

Email:

Home Phone:

Cell Phone (text or call):

Preferred day(s):

Monday Tuesday Wednesday Thursday

Friday Saturday Sunday

Preferred time(s):

Morning (8am-12pm) Afternoon (1pm-5pm)

Evening (6pm-10pm) Other: _____

Preferred location(s):

Triangle

Home

Other: _____

APPENDIX B: CONSENT AND ASSENT DOCUMENTS

**University of North Carolina at Chapel Hill
Consent to Participate in a Research Study**

Adult Participants – Athlete

Consent Form Version Date: __5/19/14__

IRB Study # 14-0583

Title of Study: Exploring the relationship between coaching behaviors and developmental outcomes among adolescent female athletes in competitive sport

Principal Investigator: Jesse Keroack

Principal Investigator Department: School of Education

Principal Investigator Phone number: 352-339-5838

Principal Investigator Email Address: jkeroack@live.unc.edu

Faculty Advisor: Dr. Steve Knotek

Faculty Advisor Contact Information: 919.843.2049; sknotek@email.unc.edu

What are some general things you should know about research studies?

You are being asked to take part in a research study. To join the study is voluntary.

You may refuse to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given a copy of this consent form. You should ask the researchers named above, or staff members who may assist them, any questions you have about this study at any time.

Who is sponsoring this study?

This research is sponsored by the University of North at Chapel Hill (the Sponsor). In addition, Jesse Keroack, the principal investigator on this study, participates in paid activities that are not part of this study for the Triangle Volleyball Club.

A review of these arrangements was conducted at UNC-Chapel Hill. It was concluded that any direct possible benefit to the person(s) listed above is remote. Based on this information, your participation in this research study is not likely to affect either your safety or the scientific quality of the study. If you would like more information, please ask the researchers listed in the first page of this form.

What is the purpose of this study?

Participating in sports can result in a number of positive outcomes including the development an athletes' physical, behavioral, social, and emotional skills and abilities. One important factor that may influence the potential benefits of sport participation is the coach. The purpose of this research study is to learn about how coaching behaviors can impact the development of positive outcomes and learning of life skills among female athletes in a competitive sport setting. You

are being asked to be in the study because I am interested in how athletes view their coaches' actions and behaviors and how this may affect their sport experience and the development of important skills.

Are there any reasons you should not be in this study?

You should not be in this study if you did not participate on a Triangle team this spring season (2014) or if you are under the age of 13.

How many people will take part in this study?

There will be approximately 156 people in this research study: 150 student-athletes and 6 coaches.

How long will your part in this study last?

I will be asking you to complete several surveys during practice. It should take you approximately 20-30 minutes to complete these surveys.

What will happen if you take part in the study?

You will be asked to complete several short surveys during practice. One survey asks about the experiences and life skills you think you have gained from participating on a Triangle team under your specific head coach this season. Another will ask about the behaviors and actions of your head coach this season. Finally, you will be asked to fill out some information about yourself (e.g., age, grade, team name). Participation is completely voluntary, your name will not appear on any of the surveys and every effort will be made to ensure your responses are kept confidential.

What are the possible benefits from being in this study?

Research is designed to benefit society by gaining new knowledge. You will not benefit personally from being in this research study.

What are the possible risks or discomforts involved from being in this study?

There are no known risks from participating in this study, however, if you feel uncomfortable at any time during the study you may withdraw without penalty. You should report any problems or discomfort you feel to the researcher.

What if we learn about new findings or information during the study?

You will be given any new information gained during the course of the study that might affect your willingness to continue your participation.

How will information about you be protected?

The surveys will be completed anonymously, meaning you will not put your name on them. No one will have access to individually identifiable data and your name will never appear in any report or publication about this study. Your peers and your coach are likely to know that you participated in this study; however, your responses will be kept confidential. The surveys will be kept in a secure and confidential location and will be destroyed one year after the completion of the study.

Participants will not be identified in any report or publication about this study. Although every effort will be made to keep research records private, there may be times when federal or state law requires the disclosure of such records, including personal information. This is very unlikely, but if disclosure is ever required, UNC-Chapel Hill will take steps allowable by law to protect the privacy of personal information. In some cases, your information in this research study could be reviewed by representatives of the University, research sponsors, or government agencies (for example, the FDA) for purposes such as quality control or safety.

What if you want to stop before your part in the study is complete?

You can withdraw from this study at any time, without penalty. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

Will it cost you anything to be in this study?

It will not cost you anything to be in this study.

What if you have questions about this study?

You have the right to ask, and have answered, any questions you may have about this research. If you have questions about the study, complaints, concerns, or if a research-related injury occurs, you should contact the researchers listed on the first page of this form.

What if you have questions about your rights as a research participant?

All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns about your rights as a research subject, or if you would like to obtain information or offer input, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Participant's Agreement:

I have read the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study.

Signature of Research Participant

Date

Printed Name of Research Participant

Signature of Research Team Member Obtaining Consent

Date

Printed Name of Research Team Member Obtaining Consent

University of North Carolina at Chapel Hill

Assent to Participate in a Research Study

Adolescent Participants age 15-17

Consent Form Version Date: 5/19/14

IRB Study # 14-0583

Title of Study: Exploring the relationship between coaching behaviors and developmental outcomes among adolescent female athletes in competitive sport

Principal Investigator: Jesse Keroack

Principal Investigator Department: School of Education

Principal Investigator Phone number: 352-339-5838

Principal Investigator Email Address: jkeroack@live.unc.edu

Faculty Advisor: Dr. Steve Knotek

Faculty Advisor Contact Information: 919.843.2049; sknotek@email.unc.edu

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your parent, or guardian, needs to give permission for you to be in this study. You do not have to be in this study if you don't want to, even if your parent has already given permission. To join the study is voluntary. You may refuse to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study. You will be given a copy of this consent form. You should ask the researchers named above, or staff members who may assist them, any questions you have about this study at any time.

Who is sponsoring this study?

This research is sponsored by the University of North at Chapel Hill (the Sponsor). In addition, Jesse Keroack, the principal investigator on this study, participates in paid activities that are not part of this study for the Triangle Volleyball Club.

A review of these arrangements was conducted at UNC-Chapel Hill. It was concluded that any direct possible benefit to the person(s) listed above is remote. Based on this information, your participation in this research study is not likely to affect either your safety or the scientific quality of the study. If you would like more information, please ask the researchers listed in the first page of this form.

What is the purpose of this study?

Participating in sports can result in a number of positive outcomes including the development an athlete's physical, behavioral, social, and emotional skills and abilities. One important factor that can influence the potential benefits of sport participation is the coach. The purpose of this

research study is to learn about how coaching behaviors can impact the development of positive outcomes and learning of life skills among female athletes in a competitive sport setting.

You are being asked to be in the study because I am interested in how athletes view their coaches' actions and behaviors and how this may affect their sport experience and the development of important skills.

Are there any reasons you should not be in this study?

You should not be in this study if you did not participate on a Triangle team this spring season (2014) or if you are under the age of 13.

How many people will take part in this study?

There will be approximately 156 people in this research study: 150 athletes and 6 coaches.

How long will your part in this study last? It should take you approximately 20-30 minutes to complete the surveys.

What will happen if you take part in the study?

You will be asked to complete several short surveys during practice. One survey asks about the experiences and life skills you think you have gained from participating on a Triangle team under your specific head coach this season. Another will ask about the behaviors and actions of your head coach this season. Finally, you will be asked to fill out some information about yourself (e.g., age, grade, team name). Participation is completely voluntary, your name will not appear on any of the surveys and every effort will be made to ensure your responses are kept confidential.

What are the possible benefits from being in this study?

Research is designed to benefit society by gaining new knowledge. You will not benefit personally from being in this research study.

What are the possible risks or discomforts involved from being in this study?

There are no known risks from participating in this study, however, if you feel uncomfortable at any time during the study you may withdraw without penalty. You should report any problems or discomfort you feel to the researcher.

How will information about you be protected?

The surveys will be completed anonymously, meaning you will not put your name on them. No one will have access to individually identifiable data and your name will never appear in any report or publication about this study. Your peers and your coach are likely to know that you participated in this study; however, your responses will be kept confidential. The surveys will be kept in a secure and confidential location and will be destroyed one year after the completion of the study.

Participants will not be identified in any report or publication about this study. Although every effort will be made to keep research records private, there may be times when federal or state law requires the disclosure of such records, including personal information. This is very unlikely,

but if disclosure is ever required, UNC-Chapel Hill will take steps allowable by law to protect the privacy of personal information. In some cases, your information in this research study could be reviewed by representatives of the University, research sponsors, or government agencies (for example, the FDA) for purposes such as quality control or safety.

What if you want to stop before your part in the study is complete?

You can withdraw from this study at any time, without penalty. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

Will you receive anything for being in this study? You will not receive anything for being in this study.

Will it cost you anything to be in this study? It will not cost you anything to be in this study.

What if you have questions about this study?

You have the right to ask, and have answered, any questions you may have about this research. If you have questions about the study (including payments), complaints, concerns, or if a research-related injury occurs, you should contact the researchers listed on the first page of this form.

What if you have questions about your rights as a research participant?

All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns about your rights as a research subject, or if you would like to obtain information or offer input, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Participant's Agreement:

I have read the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study.

Your signature if you agree to be in the study

Date

Printed name if you agree to be in the study

University of North Carolina at Chapel Hill

Assent to Participate in a Research Study

Minor Subjects (7-14 yrs.)

Consent Form Version Date: __5/19/14__

IRB Study # 14-0583

Title of Study: Exploring the relationship between coaching behaviors and developmental outcomes among adolescent female athletes in competitive sport

Person in charge of study: Jesse Keroack

Where they work at UNC-Chapel Hill: School of Education

Other people working on this study: Dr. Steve Knotek

The people named above are doing a research study.

These are some things we want you to know about research studies:

Your parent needs to give permission for you to be in this study. You do not have to be in this study if you don't want to, even if your parent has already given permission.

You may stop being in the study at any time. If you decide to stop, no one will be angry or upset with you.

Sometimes good things happen to people who take part in studies, and sometimes things happen that they may not like. We will tell you more about these things below.

Who is sponsoring this study?

This research is sponsored by the University of North at Chapel Hill (the Sponsor). In addition, Jesse Keroack, the principal investigator on this study, participates in paid activities that are not part of this study for the Triangle Volleyball Club.

A review of these arrangements was conducted at UNC-Chapel Hill. It was concluded that any direct possible benefit to the person(s) listed above is remote. Based on this information, your participation in this research study is not likely to affect either your safety or the scientific quality of the study. If you would like more information, please ask the researchers listed in the first page of this form.

Why are they doing this research study?

Participating in sports can be a positive experience for many children. Children who participate in sports may learn a number of important mental and physical skills. One important factor that can impact the development of these types of skills is the coach.

The reason for doing this research is to learn about how the actions and behaviors of a coach can impact the development of positive outcomes and learning of life skills among female athletes in a competitive sport setting.

Why are you being asked to be in this research study?

You are being asked to be in the study because I am interested what you think your coaches do

and what experiences and skills you think you have learned while participating on a team this spring.

How many people will take part in this study?

If you decide to be in this study, you will be one of about 156 people in this research study.

What will happen during this study?

This study will take place at *Triangle Volleyball Club* and will last between 20 and 30 minutes.

During this study you will be asked to complete several short surveys during practice. The surveys only take about 20-30 minutes to complete. One survey asks about the experiences you have had this season and the life skills you think you learned from participating on a Triangle team under your specific head coach this season. The other surveys will ask about the behaviors and actions of your head coach this season. Finally, you will be asked to fill out some information about yourself (e.g., age, grade, team name).

You will not put your name on any of the surveys and every effort will be made to ensure your responses are kept confidential.

Who will be told the things we learn about you in this study?

The person in charge of this study will be the only one with access to your responses. We will not tell anyone what you tell us without your permission unless there is something that could be dangerous to you or someone else.

What are the good things that might happen?

Research is designed to benefit society by gaining new knowledge. You will not benefit personally from being in this research study.

What are the bad things that might happen?

There are no known risks (i.e., things that make someone feel bad) from participating in this study, however, if you do feel bad or uncomfortable at any point you should report any problems to the researcher.

Will you get any money or gifts for being in this research study? No.

Who should you ask if you have any questions?

If you have questions you should ask the people listed on the first page of this form. If you have other questions, complaints or concerns about your rights while you are in this research study you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

If you sign your name below, it means that you agree to take part in this research study.

Sign your name here if you want to be in the study _____ Date _____

Print your name here if you want to be in the study _____

Signature of Research Team Member Obtaining Assent _____ Date _____

Printed Name of Research Team Member Obtaining Assent _____

University of North Carolina at Chapel Hill
Parental Permission for a Minor Child to Participate in a Research Study
Consent Form Version Date: 5/19/14
IRB Study # 14-0583
Title of Study: Exploring the relationship between coaching behaviors and developmental outcomes among adolescent female athletes in competitive sport
Principal Investigator: Jesse Keroack
Principal Investigator Department: School of Education
Principal Investigator Phone number: 352-339-5838
Principal Investigator Email Address: jkeroack@live.unc.edu
Faculty Advisor: Dr. Steve Knotek
Faculty Advisor Contact Information: 919-843-2049; sknotek@email.unc.edu

What are some general things you and you child should know about research studies?

You are being asked to allow your child to take part in a research study. To join the study is voluntary.

You may refuse to give permission, or you may withdraw your permission for your child to be in the study, for any reason, without penalty. Even if you give your permission, your child can decide not to be in the study or to leave the study early.

Research studies are designed to obtain new knowledge. This new information may help people in the future. Your child may not receive any direct benefit from being in the research study.

There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you and your child understand this information so that you and your child can make an informed choice about being in this research study.

You will be given a copy of this consent form. You and your child should ask the researchers named above, or staff members who may assist them, any questions you have about this study at any time.

Who is sponsoring this study?

This research is sponsored by the University of North at Chapel Hill (the Sponsor). In addition, Jesse Keroack, the principal investigator on this study, participates in paid activities that are not part of this study for the Triangle Volleyball Club.

A review of these arrangements was conducted at UNC-Chapel Hill. It was concluded that any direct possible benefit to the person(s) listed above is remote. Based on this information, your participation in this research study is not likely to affect either your safety or the scientific quality of the study. If you would like more information, please ask the researchers listed in the first page of this form.

What is the purpose of this study?

Participating in sports can result in a number of positive outcomes including the development an athlete's physical, behavioral, social, and emotional skills and abilities. One important factor that may influence the potential benefits of sport participation is the coach. Coaches play a role

in constructing a supportive environment, developing meaningful relationships, and building conditions that foster exposure to important developmental experiences that facilitate the development of life skills. Investigating athletes' perceptions of coaching behaviors is key to understanding an individual's sport experience and determining what mechanisms contribute to positive and negative outcomes. The purpose of this research study is to learn about how coaching behaviors can impact the development of positive outcomes and learning of life skills among female athletes in a competitive sport setting.

Your child is being asked to be in the study because I am interested what athlete's think their coaches do and what experiences and skills she has learned while participating on a team this spring.

Are there any reasons your child should not be in this study?

Your child should not be in this study if they did not participate on a Triangle team this spring (2014) or they are under the age of 13.

How many people will take part in this study?

There will be approximately 156 people in this research study: 150 student-athletes and 6 coaches.

How long will your child's part in this study last?

Your child will be asked to complete several short questionnaires during a practice session. The surveys will take approximately 20-30 minutes to complete.

What will happen if your child takes part in the study?

Your child will be asked to complete several short questionnaires during or after practice. One questionnaire asks about the experiences and life skills your child thinks she has gained from participating on a Triangle team under her specific head coach this season. One will ask about your child's perceptions of the behaviors and actions of the head coach this season. Finally, your child will be asked to fill out some information about herself (e.g., age, grade, team name). Participation is completely voluntary and your child can choose to stop at any time. Your child's name will not appear on any of the questionnaires and every effort will be made to ensure your child's responses are kept confidential.

What are the possible benefits from being in this study?

Research is designed to benefit society by gaining new knowledge. Your child will not benefit personally from being in this research study.

What are the possible risks or discomforts involved from being in this study?

There are no known risks from being in this study, however if your child feels discomfort at anytime you or your child should report any problems to the researcher.

What if we learn about new findings or information during the study?

You and your child will be given any new information gained during the course of the study that might affect your willingness to continue your child's participation in the study.

How will information about your child be protected?

The questionnaires will be completed anonymously, meaning your child will not put her name on them. No one will have access to individually identifiable data and your child's name will never appear in any report or publication about this study. Your child's peers and coaches are likely to know that she participated in this study; however, your child's responses will be kept confidential. The questionnaires will be kept in a secure and confidential location and will be destroyed one year after the completion of the study.

Participants will not be identified in any report or publication about this study. Although every effort will be made to keep research records private, there may be times when federal or state law requires the disclosure of such records, including personal information. This is very unlikely, but if disclosure is ever required, UNC-Chapel Hill will take steps allowable by law to protect the privacy of personal information. In some cases, your child's information in this research study could be reviewed by representatives of the University, research sponsors, or government agencies (for example, the FDA) for purposes such as quality control or safety.

What if you or your child wants to stop before your child's part in the study is complete?

You can withdraw your child from this study at any time, without penalty. The investigators also have the right to stop your child's participation at any time. This could be because your child has had an unexpected reaction, or has failed to follow instructions, or because the entire study has been stopped.

Will your child receive anything for being in this study?

Neither you nor your child will receive anything for being in this study.

Will it cost you anything for your child to be in this study?

It will not cost anything to be in this study.

What if you or your child has questions about this study?

You and your child have the right to ask, and have answered, any questions you may have about this research. If there are questions about the study (including payments), complaints, concerns, or if a research-related injury occurs, contact the researchers listed on the first page of this form.

What if there are questions about your child's rights as a research participant?

All research on human volunteers is reviewed by a committee that works to protect your child's rights and welfare. If there are questions or concerns about your child's rights as a research subject, or if you would like to obtain information or offer input, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Parent's Agreement:

I have read the information provided above. I have asked all the questions I have at this time. I voluntarily give permission to allow my child to participate in this research study.

Printed Name of Research Participant (child)

Signature of Parent

Date

Printed Name of Parent

Signature of Research Team Member Obtaining Permission

Date

Printed Name of Research Team Member Obtaining Permission

**University of North Carolina at Chapel Hill
Consent to Participate in a Research Study
Adult Participants – Coach**

Consent Form Version Date: __5/19/14_____

IRB Study # 14-0583

Title of Study: Exploring the relationship between coaching behaviors and developmental outcomes among adolescent female athletes in competitive sport

Principal Investigator: Jesse Keroack

Principal Investigator Department: School of Education

Principal Investigator Phone number: 352-339-5838

Principal Investigator Email Address: jkeroack@live.unc.edu

Faculty Advisor: Dr. Steve Knotek

Faculty Advisor Contact Information: 919.843.2049; sknotek@email.unc.edu

What are some general things you should know about research studies?

You are being asked to take part in a research study. To join the study is voluntary.

You may refuse to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given a copy of this consent form. You should ask the researchers named above, or staff members who may assist them, any questions you have about this study at any time.

Who is sponsoring this study?

This research is sponsored by the University of North at Chapel Hill (the Sponsor). In addition, Jesse Keroack, the principal investigator on this study, participates in paid activities that are not part of this study for the Triangle Volleyball Club.

A review of these arrangements was conducted at UNC-Chapel Hill. It was concluded that any direct possible benefit to the person(s) listed above is remote. Based on this information, your participation in this research study is not likely to affect either your safety or the scientific quality of the study. If you would like more information, please ask the researchers listed in the first page of this form.

What is the purpose of this study?

Participation in organized activities has been associated with many indicators of positive developmental outcomes for children and adolescents. Unfortunately, however, not all experiences in sports are positive and participation alone does not guarantee beneficial outcomes.

Coaches, as adult leaders in the sport context, play a pivotal role in constructing a supportive environment, developing meaningful relationships, and building conditions that foster exposure to important developmental experiences that facilitate the development of life skills. Investigating perceptions of coaching behavior are key to understanding an individual's sport experience and determining what mechanisms contribute to positive and negative outcomes such as the development of life skills that can then be used in multiple settings in which youth participate. Therefore, the purpose of this research study is to explore the relationship between coaching behaviors and developmental experiences, including the development of important life skills, among female student-athletes participating in competitive sport.

You are being asked to be in the study because you have been selected as an exemplar head coach who demonstrates coaching behaviors that are associated with facilitating the personal growth of your players. You are the expert and you can provide important information regarding the types of skills athletes are developing (e.g., initiative, positive identity, goal setting and teamwork skills) and the most effective strategies for developing and facilitating the transfer of these skills outside the sport setting (e.g., school, careers, communities).

Are there any reasons you should not be in this study?

You should not be in this study if you are not a head coach or if you did not coach at Triangle this past year.

How many people will take part in this study?

There will be approximately 156 people in this research study, 150 student-athletes and 6 coaches.

How long will your part in this study last?

You will be asked to participate in one to two interviews lasting approximately 60-90 minutes each. You may be contacted after the interview in order to answer any follow-up questions or clarify information gathered during the interview.

What will happen if you take part in the study?

You will participate in one to two interviews that will be conducted at the time and location convenient to you and each interview will last approximately 60-90 minutes. I will be asking you about your coaching philosophy and the strategies you use to build and transfer life skills among your student athletes. At the conclusion of the interview you will be asked to provide some basic demographic information (e.g., education, years coaching, credentialing) and you may be contacted for follow up questions.

Participation is voluntary and you may ask to discontinue the interview at any time. I will also be asking to audio record the interview, you may request to have the recording device turned off at any point during the interview.

What are the possible benefits from being in this study?

Research is designed to benefit society by gaining new knowledge. You will not benefit personally from being in this research study.

What are the possible risks or discomforts involved from being in this study?

There are no known risks from participating in this study.

What if we learn about new findings or information during the study?

You will be given any new information gained during the course of the study that might affect your willingness to continue your participation.

How will information about you be protected?

Recordings will be kept in a locked file cabinet and only the primary investigator will have access to the original recordings and any other identifiable data. Your name will be replaced with a pseudonym during the transcription process. In addition, your name will not appear in any data analysis, report, or publication of this study. The file linking your name to the identifiable data will be protected by a username and password that meets complexity and change management requirements.

Participants will not be identified in any report or publication about this study. Although every effort will be made to keep research records private, there may be times when federal or state law requires the disclosure of such records, including personal information. This is very unlikely, but if disclosure is ever required, UNC-Chapel Hill will take steps allowable by law to protect the privacy of personal information. In some cases, your information in this research study could be reviewed by representatives of the University, research sponsors, or government agencies (for example, the FDA) for purposes such as quality control or safety.

After the conclusion of the study the original recordings will be destroyed and transcriptions, analyses, and reports about the data will be kept secure for one year. Electronic data will be stored on a computer that has been protected by a username and password that meets complexity and change management requirements.

Check the line that best matches your choice:

OK to record me during the study

Not OK to record me during the study

Please note, you may request to have the recording device turned off at any point during the interview.

What if you want to stop before your part in the study is complete?

You can withdraw from this study at any time, without penalty. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

Will it cost you anything to be in this study?

It will not cost you anything to be in this study.

What if you have questions about this study?

You have the right to ask, and have answered, any questions you may have about this research. If you have questions about the study (including payments), complaints, concerns, or if a research-related injury occurs, you should contact the researchers listed on the first page of this form.

What if you have questions about your rights as a research participant?

All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns about your rights as a research subject, or if you would like to obtain information or offer input, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Participant's Agreement:

I have read the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study.

Signature of Research Participant

Date

Printed Name of Research Participant

Signature of Research Team Member Obtaining Consent

Date

Printed Name of Research Team Member Obtaining Consent

APPENDIX C: ASSESSMENT INSTRUMENTS

Athlete Demographic Survey

Directions: Please complete the following information or mark the best answer provided.

Part 1: General Information

Age: _____ years

School year 2013-2014

Grade completed: _____ 8th grade
_____ 9th grade
_____ 10th grade
_____ 11th grade
_____ 12th grade

Race/ Ethnicity: _____ African American
_____ Asian/Pacific Islander
_____ Caucasian
_____ Hispanic
_____ Native American
_____ Other (please specify) _____

Highest degree earned by parents:

Father: _____	High School Degree	Mother: _____	High School Degree
_____	Associates Degree	_____	Associates Degree
_____	Bachelors Degree	_____	Bachelors Degree
_____	Masters Degree	_____	Masters Degree
_____	Ph.D. or M.D.	_____	Ph.D. or M.D.

Please indicate the number of sports you currently play within a school or other competitive setting and list what you consider your primary sport?

Number: _____ Primary: _____

Number of seasons playing with Triangle Volleyball Club: _____

Current team name: _____

How long had you known your current head coach? _____ years

How many hours per week do you spend participating in volleyball related activities within Triangle Volleyball Club (practice, games, strength & conditioning, etc.)?

_____ hours

Coach Demographic Survey

Directions: Please complete the following information or mark the best answer provided.

Part 1: General Information

Gender: Male Female

Age: _____ years

Race/ Ethnicity: _____ African American
 _____ Asian/Pacific Islander
 _____ Caucasian
 _____ Hispanic
 _____ Native American
 _____ Other (please specify)

What is the highest Degree you have earned?
 _____ High School Degree
 _____ Associates Degree
 _____ Bachelors Degree
 _____ Masters Degree
 _____ Ph.D. or M.D.
 _____ Other

Part 2: Coaching Information

How many years have to coached volleyball?

How many seasons have you coached at Triangle Volleyball Club?

How many seasons have you been a head volleyball coach at Triangle Volleyball Club?

What team do you currently coach?

What is the win-loss record for your current Triangle team?

Were you a competitive athlete? If yes, please list which sports you played and the highest level played?

Sport	Level (e.g., college)

Have you had formal coaching education for volleyball (e.g., professional development or trainings)? Yes No
If yes, please describe.

Do you hold any coaching certifications or credentials for volleyball? Yes No
If yes, please describe.

Have you attended any coaching training or professional development sessions focused on teaching non-physical skills (e.g., leadership, autonomy, social skills)? Yes No
If yes, please describe.

Coach Interview Guide

1. Coaching philosophy.

- a. How would you describe your philosophy of coaching at Triangle?
 - i. Place the following in order of most important to least important (1) developing physical skills, (2) teaching life skills, (3) winning, and (4) having fun?

2. Developmental outcomes and life skill development.

- a. What outcomes do you hope your players develop through participation on your team?
- b. Specifically, what life skills do you focus on developing in your athletes?

If coach does not mention relevant life skills, read to coach: *Life skills have been defined as those “skills that enable individuals to succeed in the different environments in which they live, such as school, home, and their neighborhoods. Life skills can be behavioral (communicating effectively with peers and adults), cognitive (making effective decisions); interpersonal (being assertive or intrapersonal (setting goals).”*

- c. Examples of life skills include _____; do you focus on any of these in practices or games?

3. Strategies used to facilitate development of life skills.

- a. What strategies do you use to foster the development of life skills in your athletes?
- b. Can you give an example of when you have successfully attempted to teach life skills in your athletes?
 - i. Can you give me an example for another life skill such as (life skill previously mentioned by coach)?
 - ii. How did you know you were successful?
- c. In your experience, what has been the most successful strategy to teach life skills?
- d. What is the biggest challenge you face in teaching these types of skills to your athletes?
 - i. How do parents impact your strategies or development of these skills?

4. Transfer of life skills outside of the sport setting.

- a. What strategies do you use to help athletes transfer these life skills outside of the sport setting?
 - i. Can you give me a specific example?
 - ii. How explicit or purposeful are you in teaching the transfer of such life skills outside of sport?
- b. Can you give me an example of when one of your athletes transferred skills learned in sport to another setting?
- c. In your experience, what has been the most successful strategy to teach the transfer of life skills from your sport to other settings?
- d. What is the biggest challenge you face in teaching athletes to use these types of skills outside the sport setting?

The Youth Experiences Survey (YES) 2.0 – Revised

Adapted from Hansen & Larson, 2005

Instructions: Based on your *current* or *recent* involvement please rate how frequently you have had the following experiences this season while participating on a Triangle Volleyball Club team with your current head coach.

Please use the following scale below to answer all the questions.

1	2	3	4	5	6	7
Never	One or two times	A few times	About half the time	Most of the time	Almost every time	Every single time

This season I...

1. Tried doing new things	1	2	3	4	5	6	7
2. Tried a new way of acting around people	1	2	3	4	5	6	7
3. I do things here I don't get to do anywhere else	1	2	3	4	5	6	7
4. Started thinking more about my future because of this activity	1	2	3	4	5	6	7
5. This activity got me thinking about who I am	1	2	3	4	5	6	7
6. This activity has been a positive turning point in my life	1	2	3	4	5	6	7
7. I set goals for myself in this activity	1	2	3	4	5	6	7
8. Learned to find ways to achieve my goals	1	2	3	4	5	6	7
9. Learned to consider possible obstacles when making plans	1	2	3	4	5	6	7
10. I put all my energy into this activity	1	2	3	4	5	6	7
11. Learned to push myself	1	2	3	4	5	6	7
12. Learned to focus my attention	1	2	3	4	5	6	7
13. Observed how others solved problems and learned from them	1	2	3	4	5	6	7
14. Learned about developing plans for solving a problem	1	2	3	4	5	6	7
15. Used my imagination to solve a problem	1	2	3	4	5	6	7
16. Learned about organizing time and not procrastinating (not putting things off)	1	2	3	4	5	6	7
17. Learned about setting priorities	1	2	3	4	5	6	7
18. Practiced self discipline	1	2	3	4	5	6	7
19. Learned about controlling my temper	1	2	3	4	5	6	7
20. Became better at dealing with fear and anxiety	1	2	3	4	5	6	7
21. Became better at dealing with stress	1	2	3	4	5	6	7
22. Learned that my emotions affect how I perform	1	2	3	4	5	6	7
23. In this activity I have improved my communication	1	2	3	4	5	6	7

skills							
24. Made friends with someone of the opposite gender	1	2	3	4	5	6	7
25. Learned I had a lot in common with people from different backgrounds	1	2	3	4	5	6	7
26. Got to know someone from a different ethnic group	1	2	3	4	5	6	7
27. Made friends with someone from a different social class (someone richer or poorer)	1	2	3	4	5	6	7
28. Learned about helping others	1	2	3	4	5	6	7
29. I was able to change my school or community for the better	1	2	3	4	5	6	7
30. Learned to stand up for something I believed was morally right							
31. We discussed morals and values							
32. Learned that working together requires some compromising	1	2	3	4	5	6	7
33. Became better at sharing responsibility	1	2	3	4	5	6	7
34. Learned to be patient with other group members	1	2	3	4	5	6	7
35. Learned how my emotions and attitude affect others in the group	1	2	3	4	5	6	7
36. Learned that it is not necessary to like people in order to work with them	1	2	3	4	5	6	7
37. I became better at giving feedback	1	2	3	4	5	6	7
38. I became better at taking feedback	1	2	3	4	5	6	7
39. Learned about the challenges of being a leader	1	2	3	4	5	6	7
40. Others in this activity counted on me	1	2	3	4	5	6	7
41. Had an opportunity to be in charge of a group of peers	1	2	3	4	5	6	7
42. This activity improved my relationship with my parents/guardians	1	2	3	4	5	6	7
43. I had good conversations with my parents/guardians because of this activity	1	2	3	4	5	6	7
44. Got to know people in the community	1	2	3	4	5	6	7
45. Came to feel more supported by the community	1	2	3	4	5	6	7
46. This activity helped me prepare for college	1	2	3	4	5	6	7
47. This activity increased my desire to stay in school	1	2	3	4	5	6	7
48. Demands were so great that I didn't get homework done	1	2	3	4	5	6	7
49. This activity interfered with doing things with family	1	2	3	4	5	6	7
50. This activity has stressed me out	1	2	3	4	5	6	7
51. Felt pressured by peers to do something I didn't want to do	1	2	3	4	5	6	7
52. I did something in this activity that was morally wrong	1	2	3	4	5	6	7
53. I was ridiculed by peers for something I did in this activity	1	2	3	4	5	6	7
54. Felt like I didn't belong in this activity	1	2	3	4	5	6	7
55. I felt left out	1	2	3	4	5	6	7
56. There were cliques in this activity	1	2	3	4	5	6	7

The Coaching Behavior Scale for Sport (CBS-S) – Revised

Adapted from Côté et al., 1999

Instructions: Based on your *current* or *recent* involvement please rate how frequently you experienced the following coaching behaviors with regard to your head coach at Triangle Volleyball Club this season.

Please use the following scale below to answer all the questions.

1	2	3	4	5	6	7
Never	Rarely	Sometimes	Fairly Often	Often	Very Often	Always

My head coach....

1. Provides me with advice while I am performing	1	2	3	4	5	6	7
2. Provides me specific feedback for correcting technical errors	1	2	3	4	5	6	7
3. Gives me reinforcement about correct technique	1	2	3	4	5	6	7
4. Provides me with feedback that helps me improve my technique	1	2	3	4	5	6	7
5. Provides visual examples to show how a skill should be done	1	2	3	4	5	6	7
6. Uses verbal examples to show how a skill should be done	1	2	3	4	5	6	7
7. Makes sure I understand the techniques and strategies I am being taught	1	2	3	4	5	6	7
8. Provides me with immediate feedback	1	2	3	4	5	6	7
9. Provides advice on how to perform under pressure	1	2	3	4	5	6	7
10. Provides advice on how to be mentally tough	1	2	3	4	5	6	7
11. Provides advice on how to stay confident about my abilities	1	2	3	4	5	6	7
12. Provides advice on how to stay positive about myself	1	2	3	4	5	6	7
13. Provides advice on how to stay focused	1	2	3	4	5	6	7
14. Helps me identify strategies to achieve my goals	1	2	3	4	5	6	7
15. Monitors my progress toward my goals	1	2	3	4	5	6	7
16. Helps me set-short term goals	1	2	3	4	5	6	7
17. Helps me identify target dates for attaining my goals	1	2	3	4	5	6	7
18. Helps me set long-term goals	1	2	3	4	5	6	7
19. Provides support to attain goals	1	2	3	4	5	6	7
20. Helps me focus on the process of performing well	1	2	3	4	5	6	7
21. Prepares me to face a variety of situations in competition	1	2	3	4	5	6	7

22. Keeps me focused in competition
23. Has a consistent routine at competition
24. Deals with problems I may experience at competitions
25. Shows confidence in my ability during competitions
26. Ensures that facilities and equipment are organized for competition
27. Shows understanding for me as a person
28. Is a good listener
29. Is easily approachable about personal problems I might have
30. Demonstrates concern for my whole self (i.e., other parts of my life than sport).
31. Is trustworthy with my personal problems
32. Maintains confidentiality regarding my personal life
33. Uses fear in his or her methods
34. Yells at me when angry
35. Disregards my opinion
36. Shows favoritism toward others
37. Spends more time coaching the best athletes

1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7

Democratic Behavior

Adapted from Chelladuri & Saleh, 1978, 1980

Instructions: In thinking about your experience this season with your head coach at Triangle Volleyball Club, please rate how frequently did you experience the following coaching behaviors.

Please use the following scale below to answer all the questions.

1	2	3	4	5
Never	Seldom	Occasionally	Often	Always

My head coach....

	Never	Always			
1. Asks for the opinion of the athletes on strategies for specific competition	1	2	3	4	5
2. Gets group approval on important matters before going ahead	1	2	3	4	5
3. Lets his/her athletes share in decision making	1	2	3	4	5
4. Encourages athletes to make suggestions for ways of conducting practices	1	2	3	4	5
5. Lets the group set its own goals	1	2	3	4	5
6. Lets the athletes try their own way even if they make mistakes	1	2	3	4	5
7. Asks for the opinion of the athletes on important coaching matters	1	2	3	4	5
8. Lets athletes work at their own speed	1	2	3	4	5
9. Lets athletes decide on the plays used in the game	1	2	3	4	5

Coaching Life Skills Items

Instructions: In thinking about your experience this season with your head coach at Triangle Volleyball Club, please rate how frequently did you experience the following coaching behaviors.

Please use the following scale below to answer all the questions.

1	2	3	4	5	6	7
Never	Rarely	Sometimes	Fairly Often	Often	Very Often	Always

My head coach...

	Never			Fairly Often			Always
1. Modeled good sportsmanship	1	2	3	4	5	6	7
2. Talked about how sport lessons relate to life	1	2	3	4	5	6	7
3. Emphasized team before self	1	2	3	4	5	6	7
4. Emphasized effort and hard work	1	2	3	4	5	6	7
5. Provided opportunities to have fun	1	2	3	4	5	6	7
6. Cared about how I was doing in school	1	2	3	4	5	6	7

APPENDIX D: TABLES AND FIGURES OF RESULTS

Table D1

Athlete Demographic Data

Sample Characteristics	Total (N=126)	Group 1 (n=64)	Group 2 (n=62)
Age	15.47	14.19	16.79
Grade (%)			
6	0.01	0.02	0.00
7	0.05	0.09	0.00
8	0.21	0.42	0.00
9	0.25	0.47	0.03
10	0.22	0.00	0.45
11	0.14	0.00	0.29
12	0.10	0.00	0.21
Race (%)			
Caucasian	0.80	0.80	0.81
African American	0.11	0.08	0.15
Hispanic	0.01	0.02	
Mixed	0.06	0.06	0.06
Father Educational Status (%)			
Graduate	0.46	0.20	0.44
College 4	0.38	0.38	0.39
College 1-3	0.04	0.02	0.06
High School	0.04	0.02	0.06
Mother Educational Status (%)			
Graduate	0.37	0.34	0.40
College 4	0.46	0.45	0.47
College 1-3	0.08	0.08	0.05
High School	0.01	0.00	0.02
Number of Sports	1.34	1.38	1.20
Number of Seasons	2.68	2.33	3.05
Years Known Coach	1.67	1.59	1.75
Hours Involved	7.24	7.25	7.23

Note. Group 1 = Teams 13 – 15, Group 2 = Teams 16 – 18.

Table D2

<i>Coach Demographic Data</i>						
Group	1			2		
Coach	C6	C2	C1	C3	C4	C5
Age	42	22	28	34	54	43
Gender	M	F	F	M	M	M
Race	C	C	C	C	C	C
Highest Degree	Grad	Co	Co	Co	Co	Co
Years Coaching	25	4	10	10	25	24
Number of Seasons Total	11	3	5	9	10	3
Seasons as a Head Coach	3	1	5	9	10	3
Formal Coach Education	Yes	Yes	Yes	Yes	Yes	Yes
Win-Loss Record (win percentage)	37-20 (64.9)	38-20 (65.5)	37-21 (63.8)	35-25 (58.3)	45-14 (76.3)	45-14 (74.6)

Note. M= Male; F= Female; C = Caucasian; Grad = Graduate Degree; Co = 4 Year College degree; Number of Seasons Total = number of seasons a coach at Volleyball Club.

Figure D1. Flow of Exemplar Coach Selection Process

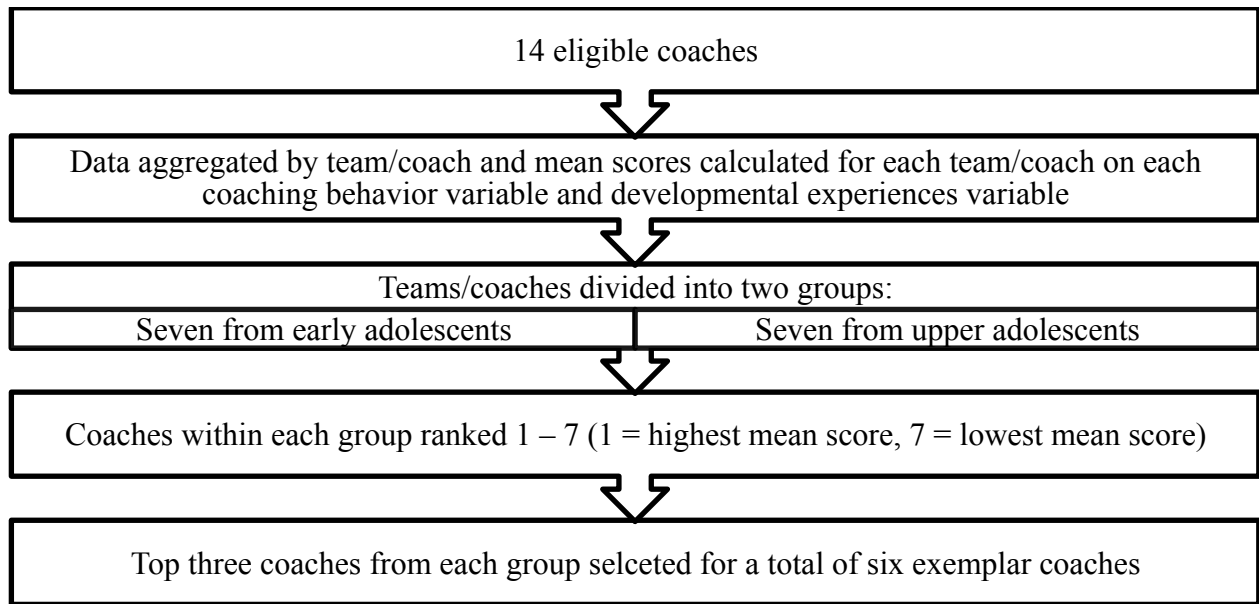


Figure D1. Flow chart explains the process through which the six exemplar coaches were chosen for in-depth interviews from the 14 coaches who were eligible to participate.

Figure D2. Histogram of data

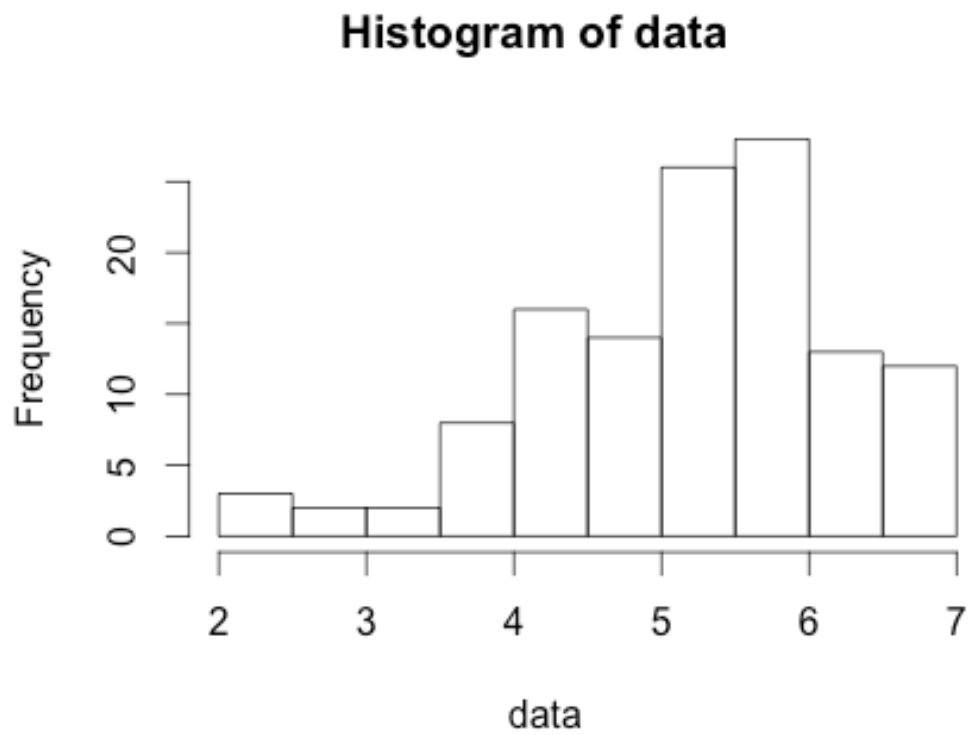


Figure D2. Histogram of data shows a relatively normal distribution, but that most participants rated coach behaviors and developmental experiences as happening with more frequency.

Figure D3. Distribution of Coach Behavior Variable Set

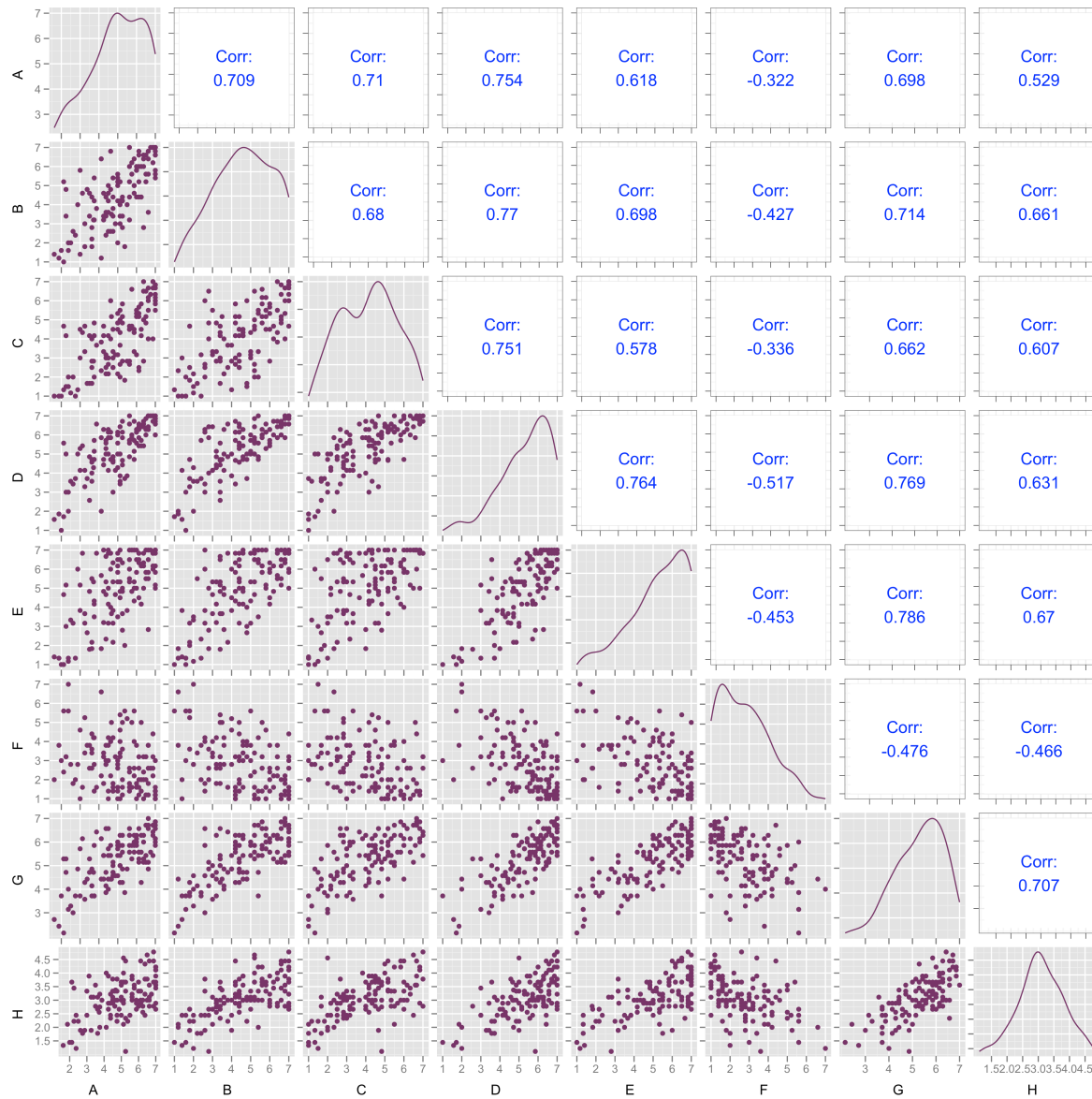


Figure D3. Distribution of coach behavior variable set (predictors). The bottom left quadrant shows scatter plots for the different coach behavior variables; the diagonal displays the distribution curve; and the upper right quadrant shows the correlation between different coaching behaviors. Letters represent the variables in the coach behavior set (A = Technical Skills; B = Mental Skills; C = Goal Setting; D = Competition Strategies; E = Personal Rapport; F = Negative Personal Rapport; G = Coaching Life Skills; H = Democratic Behavior).

Figure D4. Distribution of Developmental Experiences Variable Set

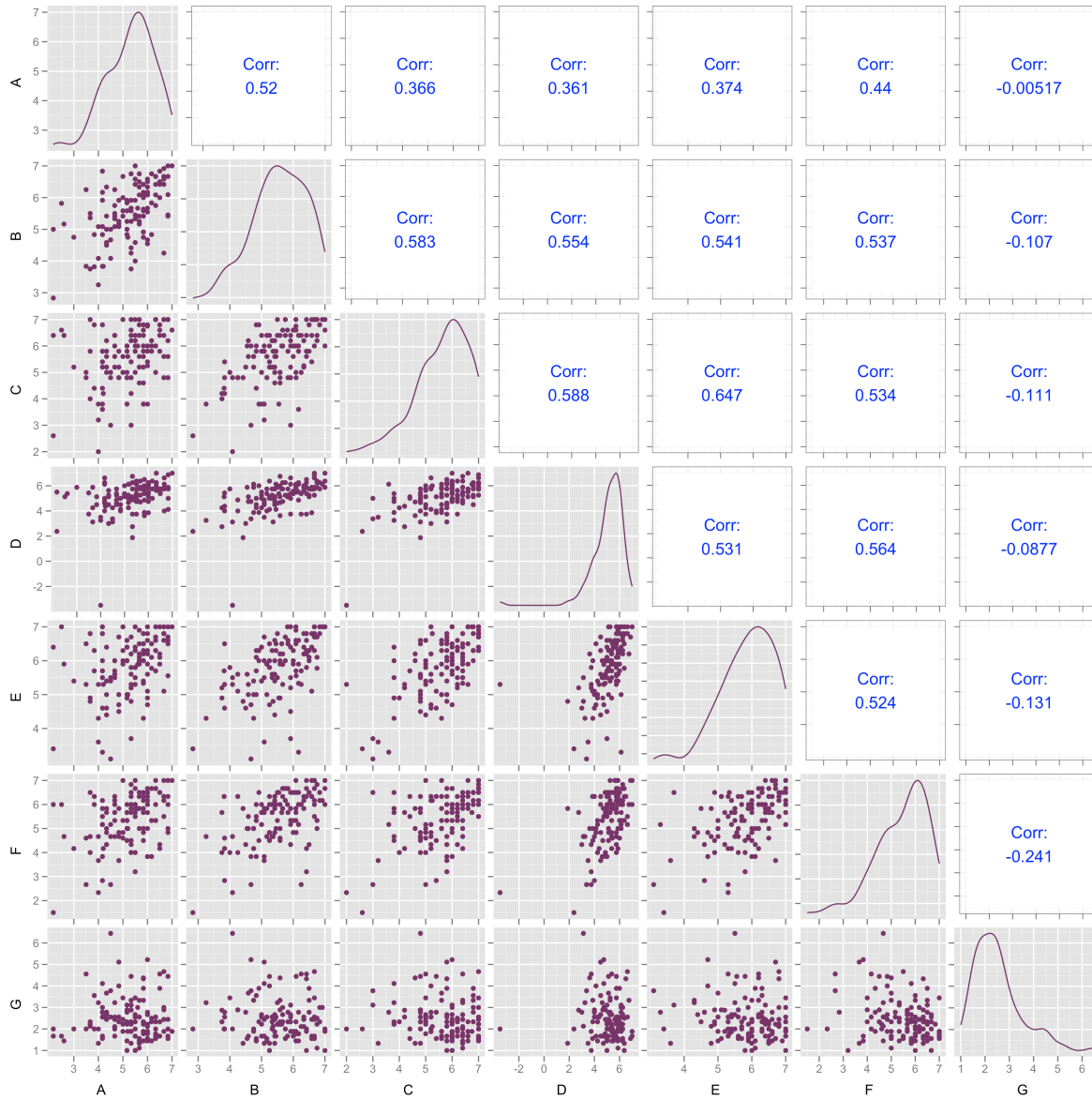


Figure D4. Distribution of developmental experiences variable set (responses). The bottom left quadrant shows scatter plots for the different developmental experiences variables; the diagonal displays the distribution curve; and the upper right quadrant shows the correlation between different developmental experiences. Letters represent the variables in the developmental experiences set (A = Identity Experiences; B = Initiative Experiences; C = Emotion Regulation; D = Positive Relationship; E = Teamwork and Social Skills; F = Adult Networks and Social Capital; G = Negative Experience).

Figure D5. Loadings and Canonical Correlations for the First Canonical Variate Pair

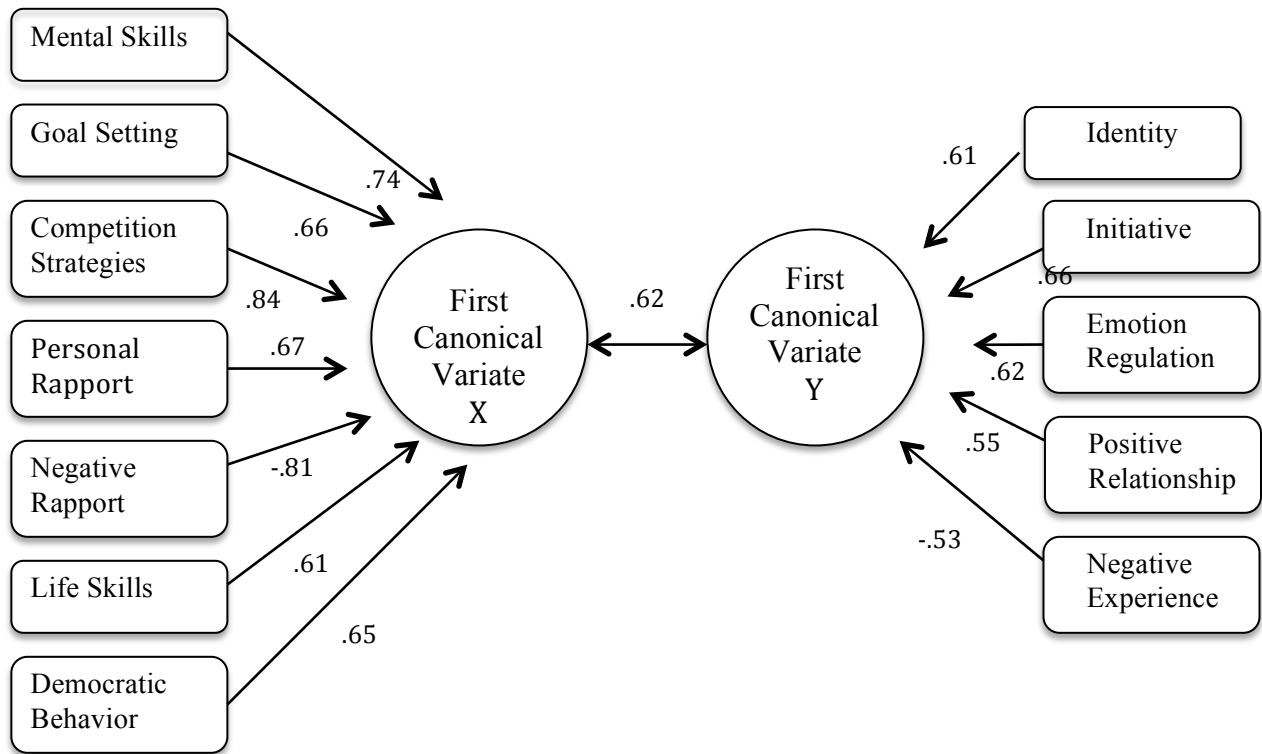


Figure D5. Loadings and canonical correlations for the first canonical variate pair. X represents the coach behavior variable set. Y represents the developmental experiences variable set.

APPENDIX E: SUMMARY OF CODES

Table E1

Summary of Codes for Participatory Goals and Desired Outcomes

Codes	Operational Definition	Example Quote
Participatory Goals and Desired Outcomes	Skills, values, and beliefs that coaches hope athletes gain from participating on their team	
Teamwork	Working together with a group of people to achieve a goal	"... You have to work with them so you have to figure out a way to communicate with that person in a meaningful way where you can still get stuff done."
Being a Good Teammate	Treating teammates with respect, kindness, and developing trust between teammates	"I think another thing I expect is that everyone is good to each other and be good teammates."
Social/interpersonal skills	Interacting with other people in a meaningful way	"Building relationships in a variety of settings and I think again its something that sport almost forces us to do."
Communication	Nonverbal and verbal communication	"...They have to be able to have a conversation with people."
Sense of Identity	A person's conception and expression of their own individuality	"Making sure that everyone has an identity and that they are willing to express that not be afraid to be who they are or anything like that."
Comfortable Being Themselves	Feeling safe and willing to express yourself	"...Allowing the kids to be themselves... you should never sacrifice who you are for another person..."
Self-Confidence	Believing in your abilities and feeling good about yourself as a person and	"I am big about your image, like what you think about yourself, confidence, I cant believe I didn't say confidence earlier. Being confident in what you believe in and who you are..."
Gender Identity	Sense of being a man or a woman (acceptance of being female)	"...Teaching young women that it is great to revel in being physically capable and there is nothing gender specific about being physically capable, strong, or athletic, it has nothing to do with whether or not you are a boy or a girl."
Female characteristics	Words or phrases used to describe characteristics of being female	"With females it definitely comes up and women seem to be more forced to conform to this idea of femininity...there is nothing

		wrong with being a tall, powerful and athletic female.”
Initiative Experiences	Taking the responsibility to make decisions and act independently	"Teaching the kids, especially at 14 to do things for themselves. So I am big on throughout the season on the idea of passing the torch and them starting to take care of their own thing."
Responsibility	Taking on an action or control of something	"You need to be responsible for what is going on. You are in charge of your life now..."
Accountability	Being responsible for yourself and the consequences of your actions	"I think sport is a great way to teach them to be accountable, like, hey carry your own stuff out of the gym, fill your own water bottles..."
Effort	Putting forth energy/hard work to achieve something	"...Walk away with what it means to work, what true effort means"
Persistence	Hard work or consistent effort overtime	"...Push more than you are comfortable pushing through, but also understanding that simply just because you worked hard doesn't guarantee you certain things. "
Time Management	Planning/ exercising conscious control over the amount of time spent on specific activities	"I think the time management stuff is huge. If you don't play a sport in college you still have to balance classes, workload, and social time..."
Goal Setting	Development of an action plan designed to guide a person or group toward a goal	"We had them write down goals and some of those goals we told them have to be character oriented."
Leadership	Taking charge, directing a group, being willing to step up	"They were in charge of calling their own timeouts and running their own timeouts."
Resilience	Ability to face adversity and overcome a challenge	"So I think just building that character of just when there is a challenge in front of you just being willing to confront it rather than throwing up your hands and saying oh well we cant do this."
Competition	Challenge situation where there is a winner and loser	"...Opportunities to compete, to succeed or fail and then opportunities to come back from that so we do a lot of scoring drills, there are very few drills that don't have a winner and a loser."

Table E2

Summary of Codes for Coaching Strategies and Methodology

Codes	Operational Definition	Quote Example
Coaching Strategies & Methodology	Techniques or coaching behaviors coaches engage in (consciously or not) that help to produce desired outcomes or participatory goals	
Positive Impact	Having a coaching philosophy that is oriented toward influencing young people in a positive way	“I go in with the intent of making a positive impact on the person.”
Winning as the product of a good process	Teams are successful as a consequence of the process of developing and exhibiting life skills	“Winning is a product of a good process so I think if you are teaching them to be good people and teaching them to trust each other...”
Teaching	Modeling, talking directly about, or engaging athletes in activities or discussions that develop a life skill or desired outcome and/or how it transfers	“I get them to articulate how they are wired and what I talk to my teams in particular about is core values. What is it that at your core who are you and we put that into words and put it on paper”
Life Skill Instruction	Directly teach a skill or desired outcome and/or how it transfers by talking about the skill to individual players or groups	“So we talked about like failing to prepare is preparing to fail and how we practice is how we play...”
Modeling	Showing or demonstrating to an athlete what behaviors or values you want or expect	“Jon and I did a lot of modeling in terms of behavior that we wanted on the court, like we would stand on the court in serve receive and demonstrate battling for the ball.”
Active Learning	Engaging in activities/tasks that provide student athletes with the chance to practice (with decreasing levels of support) and develop a skill and facilitates transfer	“...Every act counts. Jay last year would be like if you are the down ref and you are going to call a timeout, you better blow your whistle loud and step into the court and make the call. So all these little acts can make someone more confident.”
Relationship Building	Discussing ways to develop, or the importance of, a good relationship with athletes	“I think it’s a foundational notion and why this matters and why it can be so powerful because of the human aspect and the relationship.”
Treating Players equally	Coach treating athletes fairly, giving starters and nonstarters equal time and attention	“In training they can’t be the kid that just stands over there they have to be getting training and think that you are investing in them.”

Caring	Caring about a player for more than their athletic ability/talent and valuing them as a whole person	"You need to really genuinely care about the kids. So if you go out of your way to really care about their well being and stuff like that."
Humor	Funny quality, the ability to joke	"Be willing to joke around and be goofy when appropriate."

Table E3

Summary of Codes for Barriers and Challenges

Code	Operational definition	Example Quote
Barriers and Challenges	Any thing that gets in the way or poses a challenge to the coaches' goal to develop or transfer life skills beyond the sport	
Problem Parents	The negative impact of parents	"I think that car time that they have is like and if you are a parent how do you frame that. Are you reinforcing those skills or is it tearing everything down."
Parents as Solutions	Parents viewed in a positive light	"I don't think there is any parent out there who is going to say I am not going to support them I think that is ridiculous, I just think they don't understand why to the extent that they should and its just that we need to share that with them."
Reinforcing Different Message	Parents tell/reinforce athletes something different than the coaches	"If I am the only one interested in producing a good citizen and their parents are only interested in the playing aspect of it than that is very difficult to overcome"
Time Restriction	Time constraints on interactions between coaches and athletes	"You are only with them for 5 hours a week..."
America's Culture	Ideas, perspectives, attitudes, images, and other phenomena that are within the mainstream of a given culture or accepted by a certain group	"Kids in general today, they are looking at tomorrow as a long range plan and they are more concerned with what is going to happen to them in the next 15 minutes and how many people liked my picture on instagram and there is an immediate."
Technology Use	Use of cellphones or other technology devices that impede life skill development	"We are just missing an opportunity to build a relationship if we are all sitting their looking at our phones."

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