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Psychological Factors That Impact the Drop-Out Rate in Adolescent Sports

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PSYCHOLOGICAL FACTORS THAT IMPACT
THE DROP-OUT RATE IN ADOLESCENT SPORTS

by

NICOLE S. MCCLONE

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Sport and Exercise Science
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ABSTRACT

Children are dropping out of sport at alarming rates. With the highest numbers of drop-out occurring between the ages of ten and seventeen, the focus of this research is on the drop-out rates of adolescents from sport. Athletic participation has been linked to positive academic performance, key development of leadership skills, and increased engagement in the community. The research that has been conducted related to sport persistence has had a greater focus on examining factors related to the physical domain. Attention is now beginning to shift however, and researchers are looking outside the physical domain and analyzing sport attrition more through sociological and psychological domains. The purpose of this research is to conduct a literary analysis on the psychological factors that impact the drop-out rate of adolescents from sport with adolescents being defined as children between the ages of ten and seventeen. Research in this domain is fairly limited; however numerous psychological theories have recently emerged as framework for conducting research as it relates to participation and drop-out in adolescent sports. These include self-determination theory, basic needs theory, achievement goal theory, and leisure constraints theory. The developmental model of sport participation is also a tool that is widely used to study sport persistence and drop-out. Foundationally based on psychology, this literature analysis was constructed to explore drop-out factors related to adolescent sport with the intent to collect data that either supports or disputes the relational connections between sport attrition or persistence. These relationships include but are not limited to the athlete/athlete, athlete/coach, athlete/parent, and athlete/self.

DEDICATION

I dedicate this project to my daughter Maia who is my inspiration and my motivation. She has sacrificed so much of “our” time so that I could pursue this and is a constant reminder of why I have chosen to push myself beyond normal expectation. Without your support I would have never been able to complete this process. When at times I felt overwhelmed and I questioned my ability to continue, it was your love and assurance that kept me going. You are my nugget, my sweetness, and the person I love most in this world. I cannot imagine where I would be without you. I love you.

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INTRODUCTION

Purpose of the Study

Adolescent sport participation is declining at an alarming rate. “Nearly two thirds of youth are estimated to withdraw from sport participation each year, with attrition rates being particularly high among adolescents” (Turner, Perrin, Coyne-Beasley, Peterson, & Skinner, 2015, p. 5). In a 2014 study conducted for George Washington University, as published in the *Journal of Physical Activity & Health*, researchers Visek, Achrafi, Mannix, McDonnell, Harris & DiPietro (2014) asked a simple question, “Why do you play sports?” For 9 out of 10 athletes, the number one reason was fun. Through this study and the mixed qualitative and quantitative methods used, the youth sport ethos was established.

The youth sport ethos identifies the three most important dimensions of fun relative to all of the other dimensions each of which represents the fundamental tenets, namely “Being a Good Sport” (social fundamental), “Trying Hard” (internal fundamental), and “Positive Coaching” (external fundamental), a trifecta of diametrically-related dimensions that are paramount for maximizing fun experiences. (Visek et al., 2014, p. 432)

The sociological and psychological factors contingent on quality relationships cannot be ignored in how they impact adolescent sport participation rates. “Much of youth sport dropout research has been framed within motivation theories, with most commonly cited reasons for withdrawal including conflicts of interest, and negative experiences such as lack of fun, coach conflicts, and lack of playing time.” (Fraser-Thomas, Cote, & Deakin, 2008, p. 319)

Recognizing that the World Health Organization had initiated a Global Strategy on Diet, Physical Activity and Health establishes a firm platform in that one of the most serious public

health challenges of the 21st century is indeed global—childhood obesity. As reported by the Centers for Disease Control and Prevention (CDC) in data acquired from a 2011-2012 study, 20.5% of 12-19 year olds are categorized as obese (Centers for Disease Control and Prevention, n.d.). Involvement in sports provides adolescents with the necessary physical activity levels recommended by nationally and internationally accredited sports associations including the American College of Sports Medicine (ACSM) and the International Sports Sciences Association (ISSA). Sports help create healthy, well-adjusted children and promote an enhanced quality of life. “A positive youth sports experience will enhance intrinsic motivation, which will in turn lead to continued participation in sports throughout a lifetime” (Cox, 2002, p.108).

Numerous studies (Holloway, 2000; Sabo & Veliz, 2008) relate athletic participation to positive academic performance, key development of leadership skills, and increased engagement in the community. The benefits of sport participation most often lies in the intangibles; learning how to cooperate with others, such as teammates and coaches, how to develop good sportsmanship, and how to develop a sense of perceived competence and self-efficacy. *Go out and play: Youth sports in America* measured nationwide participation rates of girls and boys in exercise and organized team sports while examining the personal and social benefits associated with participation and determined that “children’s athletic participation was associated with higher levels of family satisfaction and sports and physical activity were also linked with improved physical and emotional health, academic achievement and quality of life for children” (Sabo & Veliz, 2008, p.6). Organized sports are associated with children’s general health and body esteem, healthy weight, popularity, quality of life and educational achievement. For these

reasons, it is important to examine the significant increase in withdrawal related to adolescent sports and research ways to minimize the statistics.

In this literature review, I intend to review and critique the psychological research and scholarship in relationship to adolescent sport participation and the valuation of continued play. Although research related to adolescent sports has examined participation and withdrawal factors, many of these studies have not given full consideration to factors that expand into sociological and psychological domains. As such, this literature review will provide additional insight into social and psychological factors that impact withdrawal from adolescent sports. The analytical focus on both sociology and psychology based theories will provide the additional insight. Although some studies in athletic participation and withdrawal have been conducted, little analytical attention has been paid to it outside the physical domain. I address this issue by arguing that relationship factors associated with sociological and psychological considerations are likely the root cause of most drop-outs related to adolescent sports while supporting this argument with current research connected to established theories in both sociology and psychology. These relationships include, but are not limited to, the athlete/coach, the athlete/parent, the athlete/athlete, and the athlete/self.

Numerous psychology theories including self-determination theory, basic needs theory, achievement goal theory, and leisure constraint theory have provided the framework for studies related to the drop-out rate in adolescent sport. Perhaps the strongest and most often used theories are those related to motivation. A 2014 literature review titled *Autonomy-supportive pedagogical approach to sports coaching: Research, challenges, and opportunities* (Occhino, Mallett, Rynne, & Carlisle, 2014) examines self-determination theory, psychological needs

theory and the hierarchical model of intrinsic and extrinsic motivation. This review provides tremendous insight into the role of psychology theory in researching and studying factors that impact the dropout rate in adolescent sport in relation to coaching behaviors and the creation of an autonomy-supportive climate. There are a number of studies that link coaching behaviors and the motivation of athletes. Motivation influences how people think, feel, and behave and ultimately can be linked to decisions related to the persistence or dropout in sport. Occhino et al. recognize the popularity of Mageau and Vallerand's motivational model of the coach-athlete relationship in that it has been "a catalyst for promoting research regarding autonomy-supportive approach to coaching" (Occhino et al., 2014, p. 402). Mageau and Vallerand (2003) provide seven pedagogical behaviors they determine as key to creating an autonomy-supportive environment through coaching. These behaviors include (1) providing choice within boundaries, (2) providing a rationale for tasks, (3) acknowledging feelings and perspectives, (4) providing athletes with opportunities to take initiative, (5) providing non-controlling competence feedback, (6) avoiding controlling behaviors, and (7) reducing the perception of ego-involvement in athletes. "It is proposed that coaches who embrace a coaching style that is autonomy-supportive can contribute to psychological need satisfaction and subsequently adaptive forms of motivation that lead to positive athlete outcomes" (Occhino et al., 2014, p. 402). These positive outcomes include, but are certainly not limited to increased persistence and improved performance.

Based on the research compiled in this literature review, it is my goal to elicit conversation about the implementation of new coaching standards and development of programs that promote athlete retention and evoke change in existing coaching methodology. Through recognizing the impact of sociological and psychological factors, programs and seminars for

parents that provide greater clarity to the role and impact they have on the athlete in these domains should also be considered.

Limitations in Research

There is relevance in conducting future research that examines the interrelationships between withdrawal factors and the underlying causes of these factors. This includes factors in all three domains of physical, sociological, and psychological. Mixed methods and prospective approaches should be considered as well as this will allow adolescents to explain how their experience of sport shaped their motives to drop-out (Crane & Temple, 2015). Additionally, greater focus should be placed on understanding why youth have other interests, and why youth are no longer having fun (Deci & Ryan, 2000). It has also been expressed by other researchers (Rottensteiner, Laasko, Pihlaja, & Konttinen, 2013; Turman, 2007) the limitations in examining the relationship between parent behavior and athlete drop-out citing methodological challenges in assessing negative parent behavior. It is also important to recognize that there are limitations in the questionnaire data acquired in that it can be intuitive, superficial, and subjective (Fraser-Thomas, Cote, & Deakin, 2008b). Continued longitudinal and qualitative research is necessary to understand how social and psychological factors interact and influence drop-out rates in adolescent sports.

LITERATURE REVIEW

History of Adolescent Sport in America

The late 1800's gave rise to organized youth sport in America and is considered the era by which we saw the emergence of adult-managed sport programs catered to youth (Rader, 2009). Although primarily for boys, many organizations contributed to the increase in youth programs leading into the turn of the century. These organizations included the Men's Christian Association, later known as the Young Men's Christian Association (YMCA), private preparatory schools, churches, public school athletic leagues, city playground associations, and public high schools (Rader, 2009). These organizations sponsored and supported youth athletic programs across the United States. It was through this directive that a larger attention and ultimate movement developed focused on our nation's youth. As cities became industrialized and more and more people were leaving to work outside the home and there was a disappearance of household economy, adult leaders believed that sport could fill voids related to weakened religious authority and the breakdown of community that affected the building of character in our country's youth and more specifically the boys (Rader, 2009).

Prior to 1890, children worked for family (Rader, 2009). It was only after 1890 when urban industrialization occurred and essentials began to be purchased outside the home that our society developed a weakened sense of the institution of family (Rader, 2009). With the removal of work in the home, there was a belief of fatal consequence for healthy moral growth in youth (Rader, 2009). Luther Gulick, a leading proponent of youth sports and author of *A Philosophy of Play* in 1920 believed that, "the activities out of which morals arise have been taken away" (Rader, 2009, p. 103). It was during the first two decades of the 20th century that schools

extended from four months of organized education to nine months and the age of attendance increased from fourteen to sixteen as the abundance of unmanaged spare time at the hands of youth became a growing concern (Rader, 2009). There was still limited youth/adult interaction until the newer and formal student/teacher relationship emerged.

One cultural component that influenced the emergence of organized youth sport in America was literature. Beginning in 1896, Gilbert Patton (under Burt L. Standish) wrote 208 Merriwell books and convinced his young readers that “vigorous participation in athletics would result in personal moral improvement and enhance one’s probability of material success” (Rader, 2009, p. 105). This, in conjunction with the Young Men’s Christian Association (YMCA) and their expression of ‘muscular Christianity’, classes in ‘physical culture’ emerged in things like gymnastics and calisthenics. In fact, by 1892, YMCA membership had reached a quarter of a million with 348 gymnasiums nationwide (Rader, 2009). In 1895, the YMCA formed the Athletic League of North America Amateur Athletic Union which introduced rules and sanctions to youth sports and the spirit of rivalry, athletic specialization, and professional tendencies was born (Rader, 2009).

History of Research Related to Adolescent Sport Participation

American Sports: From the Age of Folk Games to the Age of Televised Sports (Rader, 2009) documents some of the first research conducted in relation to adolescent sport participation in America. In 1932, Elmer D. Mitchell from the University of Michigan conducted research that examined the impact competitive sport had on youth (Frankl, 2007). His research placed concern on the early specialization of sport as well as the highly competitive nature of sport that was emerging from developing athletic programs. Mitchell believed that harmful and

aggressive behaviors were appearing in our youth in an attempt to be successful and as a result of early specialization. He also believed that, “highly competitive sports for children were inflicting unduly emotional and physical strain on youngsters” (Frankl, 2007, p.2).

In 1947 the American Association for Health, Physical Education, and Recreation (AAHPER) was created (Frankl, 2007). This organization was against competitive sport at the elementary level and also opposed interscholastic competition for children in the 9th grade and lower. Numerous other organizations began to emerge that held very specific stands on adolescent and youth sport in America. This included the Joint Committee on Athletic Competition for Children of Elementary and Junior High who in 1949 that believed in the abolishment of highly competitive sports programs for children (Frankl, 2007). All this attention on youth sports led to position statements being issued in 1952 by AAHPER, the National Conference of Program Planning in Games and Sport for Boys of School Age, the National Conference on Physical Education for Children of Elementary School Age, and the National Recreation Congress all against competitive sports programs for children (Frankl, 2007). Between 1973 and 1995 no less than twenty position statements were issued regarding youth sports programs. This signified a genuine turn of attention to youth sports in America.

In 1990, Ewing and Seefeldt of the Youth Sport Institution at Michigan State University made a claim that, “sports are most rewarding when the judge of skill and the definer of challenge is the individual athlete. That is when the athlete receives two rewards: the joy of participating and the satisfaction of learning to know oneself” (Frankl, 2007, p. 3). Ewing and Seefeldt concluded through their research that the desire for youth to participate in sports suffered a sharp decline between the ages of 10 and 18 (Frankl, 2007). Lead reasons for drop-out

that emerged through Ewing and Seefeldt's study were lack of fun and coaching (Frankl, 2007). These reasons continue to be a focus of psychological studies in the 21st century.

Review of Psychological Theories

The literature review revealed a connection between various contributing factors related to adolescent withdrawal of sports and various sociological and psychological theories. The psychological theories and models that emerged were: Self-Determination Theory, Basic Psychological Needs Theory, Achievement Goal Theory (Social Cognitive Theory), and Leisure Constraints Theory. Early specialization that led to performance anxiety, parent/coach pressure, isolation, restricted identity, and/or burnout was identified in multiple studies (Hecimovich, 2004; Wall & Cote, 2007).

Self-Determination Theory

Self-determination theory (SDT) is a theory of motivation that was introduced in 1985 by Ryan and Deci (2000) and is built on the foundation of three innate psychological needs; competence, autonomy, and relatedness. It focuses on the importance of creating positive conditions that foster the development of enhanced intrinsic motivation, self-regulation, and well-being. It is a theory linked with energy, effort, and persistence. It supports the belief that if the foundational psychological needs of competence, autonomy, and relatedness are left unsupported, the impact can be detrimental (Ryan & Deci, 2000). It is dialectic between the individual and the social context in which they exist.

Ryan and Deci (2000) recognized six mini theories within the confines of self-determination theory; cognitive evaluation theory, organismic integration theory, causality

orientations theory, basic psychological needs theory, goal contents theory, and relationship motivation theory.

Self-determination theory has had research applied in multiple domains, but for the purposes of this thesis, focus is on self-determination theory and how it applies in sport, and more specifically in the drop-out rate in adolescent sport. Derived from self-determination theory was the self-determination continuum which follows basic psychological needs and determines the degree in which those needs are supported (Ryan & Deci, 2000). The level of support is directly related to the motivational level/type which in turn impacts the motivational outcome. This continuum identifies the motivational types to include intrinsic motivation on one end and amotivation on the opposite end. In the middle lies extrinsic motivation (Ryan & Deci, 2000). It is believed by researchers that utilize this framework in their studies that intrinsically motivated athletes will continue participation whereas when an athlete expresses no real desire and can no longer identify reasons for doing the behavior, a classification of amotivation is attached to the athlete based on the continuum and the risk of drop-out is greater (Ryan & Deci, 2000).

Self-determination theory was used as the theoretical framework for a study (Calvo, Cervello, Jimenez, Iglesias, & Murcia, 2010) attempting to explain sport persistence and dropout in adolescent athletes. The results of this study indicated “sport dropout was explained by higher levels of amotivation, external regulation, and introjected regulation and by lower satisfaction of relatedness and autonomy needs” (Calvo et al., 2010, p. 677). Amotivation is characterized by a lack of perceived competence while external regulation is behaving to gain reward or to avoid negative contingency (Calvo et al., 2010). Introjected regulation is behavior motivated out of a sense of guilt or obligation or a need to prove something (Calvo et al., 2010). The research

concluded that “motivational characteristics are influential in shaping adolescents’ desire to persist in sport or to discontinue their sport participation” (Calvo et al., 2010, p. 677).

Challenges faced by researchers using this framework exist in that it is hard to measure motivation and that is almost always measured as perceived satisfaction. Further evaluation of this theory and its significance in relation to adolescent sport withdrawal includes its impact on the roles of coaches, parents, and athletes.

Basic Needs Theory

Originally developed by Abraham Maslow in 1943, basic needs theory is a theory of human motivation with an established hierarchy of needs including the basic needs related to the physiological self, safety, the social self, and esteem (McLeod, 2014). Leading to the culmination of self-actualization, it is built around the idea of the individual seeking fulfillment through personal growth measured through feelings of joy (McLeod, 2014). A pyramid by design, Maslow believes that certain fundamental needs must be met before a next set can be considered. As individuals move up the pyramid, needs become increasingly more social and psychological in nature leading to self-actualization. Maslow defines the five levels of hierarchal needs as (1) physiological needs like water, food, sleep, and air, (2) security needs which include needs for safety, (3) social needs including the needs for love, affection, and belonging, (4) esteem needs that reflect on personal worth, accomplishment, and social recognition, and (5) self-actualizing needs established through self-awareness (McLeod, 2014). Research supporting the application of the basic needs theory when analyzing drop-out motivators in adolescent sports has indicated that “the quality of the social interactions between athletes and coaches, and athletes’ ensuing psychological responses, are critical determinants of intentions to drop out of

youth sport” (Quested et al., 2013, p. 395). One major benefit of this particular study was that it tested athletes across five European countries, concluding that sociological and psychological responses and processes remain consistent across national boundaries. Additional research needs to be sought that reviews this holistic approach toward self-actualization and how it relates to adolescent drop-out rates in sports.

Achievement Goal Theory

Adopting a perspective utilizing the foundations of achievement goal theory (AGT), which is a developmentally based theory on how an individual defines success through ability, task, and social approval orientated motivation (Harwood & Biddle, 2008), can be beneficial when examining the factors that impact the drop-out rate in adolescent sports. This theory emerged most often in studies involving athlete/coach relationships. Developed through C. Dweck and her achievement motivation model and J. Nicholls’ theories and principles of motivation, AGT combines Dweck’s mastery response pattern and performance response pattern with Nicholl’s task-involvement and ego-involvement patterns (Duda & Balaguer, 2007). Mastery response/task-involvement behavior has been associated with positive outcomes, whereas performance response/ego-involvement behavior has been associated with negative outcomes (Duda & Balaguer, 2007). AGT is considered a social-cognitive theory whose basis is rooted in the evaluation of competence. The adoption of mastery/task goals as the foundation of assessing competence looks at developing ability and is a self-referenced perception of competence (Duda & Balaguer, 2007). The foundation of these goals focuses on learning and personal improvement and recognizes hard work and effort as measurements of success. Performance/ego goals reference others in determining perception of competence. The focus is

on social comparison and the ability to out-perform others. Success with this goal orientation is measured by high ability and impressing the right people (Duda & Balaguer, 2007). This theory essentially claims that ego-driven motivation results in higher drop-out from sport.

In a previous study (Joesaar, Hein, & Hagger, 2012) that also employed use of self-determination theory, AGT provided additional reinforcement in recognizing youth athletes' perception of autonomy support from coaches and in establishing a peer motivational climate. "Studies have shown that athletes' beliefs and perceptions regarding social agents, like coaches and peers, influence athletes' various motivational outcomes" (Joesaar et al., 2012, p. 257). A more detailed exploration into the relationship between AGT and motivation and sport attrition will be discussed.

Leisure Constraint Theory

Crawford and Godbey's leisure constraint theory (Crawford & Godbey, 1987) is built around three types of constraints that affect preferences and participation in activity. These include intrapersonal constraints which focus on the individual's psychological state as it relates to skill, ability, and beliefs, interpersonal constraints that are related to relationships with individuals or groups, and structural constraints which examine the barriers that are imposed by belief systems and organizations that fall outside the individual and includes things like the availability of resources (Casper, Bocarro, Kanters, & Floyd, 2011). As a framework to review factors associated with withdrawal from organized sports, a study by Crane and Temple (2015) conducted using leisure constraints theory found that "intrapersonal and interpersonal constraints are more frequently associated with dropping out of sport than structural constraints" (Crane & Temple, 2015, p. 114) The five major areas of drop-out discovered in Crane and Temple's

research were: perceptions of competence, social pressures, lack of enjoyment, competing priorities, and physical factors including maturity and injury.

METHODOLOGY

This study examines research in both education and sport as it relates to psychological factors that impact the drop-out rate in adolescent sport. The research and studies collected for this thesis are organized through a systematic literature review that includes an analysis of studies conducted using data collection methods including surveys, questionnaires, and other sampling procedures on the drop-out rates associated with adolescent sports.

It is crucial to clearly define the terms adolescent/adolescence for the purpose of this thesis. Due to the inclusion of both domestic and international research and studies and the dominance of psychology theory that has emerged in the research, two definitions were considered. Consistent with the World Health Organization which is a specialized agency of the United Nations that is concerned with international public health, adolescence is the “period of development (that) corresponds roughly to the period between the ages of 10 and 19 years” (Age limits and adolescents, 2003, p. 577). Although the American Department of Psychology recognizes there is no standard definition for adolescence, it has been defined in this domain as “the stage of development which begins with the pubescent years around the age of ten and continues up until physical maturation is reached around the end of the teenage years” (Adolescence, n.d.). The consistency of these two definitions is how I established the age demographic for the purpose of my research. Athletes between the ages of 10-19 were considered and are included.

Keyword searches for the population, context, and construct of interest for my research have been identified through the following databases: SPORTDiscus, Educational Resource Information Center – ERIC, PsychInfo, Sociological Abstracts, Applied Social Sciences Index

and Abstracts – ASSIA, and OneSearch. Keyword search terms included: child, youth, adolescent, adolescence, sports, athletics, drop-out, withdrawal, attrition, and participation. In order to limit my research and remain current, only studies and peer-reviewed scholarly articles dated 2000 to current day were considered. Additional searches for historical data related to the benefits of sports with no limitations placed on the date were also conducted and global and national obesity rates gathered from the most current statistical data available.

Inclusion criteria, for the purpose of this research evolved through the study and were limited based on the subjects of each study. Those studies that were not athlete based were excluded. For example, Wall and Cote's study (2007) that evaluated sport specificity at a young age and its potential negative consequences, but consisted only of questionnaires given to a parent subject base. For that reason it was excluded from this literature review.

Once all data was collected, research was separated based on the psychological theories and models used as framework in the studies. From this organizational process, distinct trends began to emerge. As previously mentioned, self-determination theory, basic needs theory, achievement goal theory, leisure constraints theory, and the developmental model of sport participation were the theories and models most prevalent and those included in the final review. The purpose of this methodology was to allow specific experiences, social climates, and behaviors to emerge as key factors that impact the drop-out rate in adolescent sport.

RESULTS

After review of multiple studies in peer reviewed journals and research conducted related to the drop-out of adolescent sport, the studies referenced below have been included in the results and have met the criteria previously set. Four studies were directly connected to self-determination theory and utilized this theory as the framework for research. Two studies focused on achievement goal theory (one with overlapping research conducted through a self-determination theory framework), while two studies focused attention on basic needs theory and one on leisure constraints theory. Two studies are included whose focus was on relationship factors that impact drop-out statistics and are included in that they involve multiple psychological theories and are foundationally driven by sociological and psychological elements.

Using a foundation of psychological needs satisfaction and self-determined motivation, Guzman and Kingston (2012) conducted research in a 19 month study with 11-19 year old athletes (680 males and 177 females) in an attempt to measure the predictors of sport drop-out. Through assessing persistence or drop-out after the 19 month study, Guzman and Kingston established motivation as being the key variable in predicting drop-out in sport. This study provided validation that the use of a motivational model in predicting sport drop-out was effective. Using structural equation modeling and a 2 (drop-out or persistence) x2 (male or female) x3 (ages 11-13, 14-16, and 17-19) factorial analysis, results concluded that persistent athletes showed a higher need satisfaction and SDI, a lower perception of conflict, and higher levels of intention to practice. Based on their findings, the researchers suggest creating climates that promote athletes' need satisfaction as a way to help minimize drop-out in sport. This includes a focus on creating mastery climates and autonomy supportive climates.

Using self-determination theory to explain sport persistence and drop-out in adolescent sport is beneficial. The three psychological needs of autonomy, competence, and relatedness have been linked to understanding the motivation behind persisting or discontinuing sports on the adolescent level (Ryan & Deci, 2000). In a study conducted in Spain (Calvo et al., 2010), 492 (n=492) soccer players between the ages of 13 and 17 participated in a study that involved questionnaires related to self-determined motivation, relatedness, competence, and autonomy. Results of this study concluded that higher levels of amotivation (a state of lacking motivation), external regulation (behaving to gain some reward or avoid a negative contingency), and introjected regulation (behaving out of a sense of guilt or obligation to prove something) were linked with drop-out. Lower levels of satisfaction in areas of relatedness and autonomy also coincided with sport drop-out.

Coatsworth and Conroy (2009) conducted a study on the developmental outcomes and youth self-perception in relation to coaching climate. Utilizing a self-determination theory framework model, Coatsworth and Conroy developed questionnaires using absolute and relative indices and administered these questionnaires to 119 (n=119) adolescent swimmers aged 10-18. The determination, once the data was analyzed, concluded that the coaching climate is indeed an important predictor of sports participation. These researchers found through the use of baseline measures and positive youth developmental outcomes an athlete dependence on inter and intrapersonal processes. The key outcomes measured were (1) the perceptions of coaches' autonomy support, (2) need satisfaction in relationship with coaches, (3) perceived competence in swimming, (4) self-esteem, (5) positive youth development outcomes, and (6) perceived coach involvement (Coatsworth & Conroy, 2009).

A study focused on relational components and motivation by Joesaar, Hein, and Hagggar (2012) was built through a framework of both self-determination theory and achievement goal theory. They concluded that perceived autonomy support from the coach as well as promotion of a task-involving peer motivational climate generated value in motivation and had positive effects on sport continuance. For this study, through a perspective longitudinal design, young athletes in an age range of 11-16 years completed questionnaires and then repeated the questionnaires a year later. Participants were from numerous sports, both individual and team. Researchers hypothesized that the perceived autonomy from the coach and the motivational climate would impact intrinsic motivation and provide stability within the coaching climate and the conclusions supported this claim. “A relatively high degree of stability was observed for both task-involving peer motivational climate and perceived autonomy support from the coach” (Joesaar et al., 2012, p, 260).

Crane and Temple (2015) reviewed nearly 30 different sports analyzing drop-out rates from organized sport among youth using leisure constraints theory as a framework. In leisure constraints research, three types of constraints are typically studied including intrapersonal or those associated with things like desire and perception of ability, interpersonal which include social factors and structural that focus on external factors (Crane & Temple, 2015). The search databases used in this study provided insight for my research. Databases used for this review included Academic Search Complete, ERIC, MEDLINE, PsychINFO, and SPORTDiscus. With most of the 43 studies that met their search criteria focusing on adolescents (24), this study provided useful insight. The primary sports represented were soccer, swimming, gymnastics, and basketball. Crane and Temple established that intrapersonal (38) and interpersonal (28)

constraints were noted far more frequent than structural (15) constraints with five major areas for drop-out emerging including lack of enjoyment, perception of competence, social pressures, competing priorities, and physical factors. For the purpose of my research, structural constraints were not considered as they do not represent psychological factors in relation to drop-out but are more representative of physical factors and valuation of interpersonal constraints was limited as some of the responses of participants like ‘having other things to do’ and ‘other social priorities’ are not considered psychological in nature. Intrapersonal constraints that emerged were lack of enjoyment and perception of competence while interpersonal constraints cited that were psychological in nature were related to pressure from others including coaches, peers and family members. (Crane & Temple, 2014, p. 121) Most studies included in the research were from Europe (23) and North America (17).

Studying the intention of drop-out of youth soccer, Quested et al. (2013) tested basic needs theory among European youth from five countries. Recognized as a sub-theory of self-determination theory, basic needs theory can be used as a framework for studying social and psychological factors that impact drop-out rates in sport (Quested et al., 2013). In testing youth soccer players across England, France, Greece, Norway, and Spain, Quested and the other researchers in this study hypothesized that the model of basic needs theory would be invariant across the five countries, supporting the idea that factors that impact drop-out in adolescent sport are global. With a mean age of 11.56 from the five countries, 7769 (n=7769) young athletes participated in the study. A five-point scale was used for the questionnaire that was designed to measure players’ feelings and experiences on the soccer team. Fifteen questions were asked with five identified as being related to autonomy need satisfaction, five that tapped into relatedness

need satisfaction and five that addressed perceived competence. The results of this study supported the hypothesis and as predicted, it was found that autonomy support is an accurate predictor of basic needs satisfaction which leads to enjoyment of the sport and furthermore minimizes the risk of drop-out. (Quested et al., 2013) “The findings of this study add to the case behind the growing speculation that the type of motivational climate within community sport may play an important role in bucking the trend for children and young adults to be inactive.” (Quested et al., 2013, p, 403) This study recognizes the crucial role that coaches play and how the environment in which the athletes participate influences persistence.

A 2002 study analyzing participation motives in predicting sport drop-out among Australian adolescent gymnasts (Ryska, Hohensee, Cooley, & Jones, 2002) was conducted drawing on multiple psychology theories and opted to extend research related to youth sport attrition. Achievement goal theory was one of the primary frameworks utilized in this study as the results recognized that emphasis on extrinsic outcomes oftentimes contributed and signified subsequent withdrawal from sport. The evidence supported the notion that young athletes participate in sport primarily for intrinsic reasons with motives like having fun, improving skill, and challenging one’s self emerging (Ryska et al., 2002). This study also, as previous studies have eluded, places concern amongst the athletic personnel surrounding these young participants; the coaches. Creating an environment that empowers the athletes is crucial. In this study, 349 (n=349) youth gymnasts ranging in age from 9 to 18 with a median age of 14.5 participated in this study. A five-point anchored scale was used to ask for a response to 32 statements regarding their reason for participation. Results of this study suggest that investigation into the contribution of sport and its influence on the development of personal achievement goals such as autonomy,

self-identity, creativity and initiative could positively influence sport persistence statistics and that a deeper understanding of the roles of significant others would also be beneficial (Ryska et al. 2002).

Significant others play a role in the persistence or withdrawal from sport as it relates to adolescents. Rottensteiner et al. (2013) conducted research with 397 young soccer players, 88 ice hockey players, and 50 basketball players who had ended participation in their given sport. Participants ranged in age between 15 and 16 and responded to a questionnaire that examined reasons for attrition. This study examined coaching behavior and style, peer interaction, and parental influence. Based on the results, the researchers concluded that coaches and teammates appeared to be the primary groups that influenced a player's decision to withdraw from participation (Rottensteiner et al, 2013). It was concluded that parents and siblings did not play crucial roles. It is through this research that recommendations were made for coaches and industry professionals to help minimize withdrawal among young athletes. Findings reinforce that coaches need to "promote team building, group dynamic exercises, and to create a motivating and exciting environment for young athletes." (Rottensteiner et al., 2013, p. 29) This study also recognizes the importance of knowing the athlete outside of the sport. The researchers conclude these recommendations can help reduce withdrawal rates in adolescent sport.

DISCUSSION

Perhaps one of the greatest reasons to conduct studies related to adolescent sport drop-out is to uncover the essential motivations that lie within the hearts and minds of our young athletes. The purpose of this study was to collect a sampling of psychology driven research that focuses on the drop-out factors that impact adolescent sport. It is of extreme value to collect information on this, as the numbers related to drop-out are rising at an alarming rate, not only in the United States, but internationally. One key to understanding and studying motivation in sport is to recognize the influential measures and impact others have on positive persistence outcomes related to adolescent sport. How to make the youth sport experience positive and how to avoid negative consequences are key as programs are developed, coaching curriculum is refined, and dialogue within the adolescent sport community is altered. Currently, there are no specific standards or certifications universally accepted in the coaching community. Although teachers and other professionals that interact at such a high degree with our children must meet government standards in licensure and certification, coaches do not. Yet their impact in shaping the lives of our children is substantial.

Through the results of this research clear psychological factors emerged as predictors of athlete persistence. Existing psychological theories provided the framework for the studies included in this research. Results were supported through self-determination theory (Calvo et al., 2010; Coatsworth & Conroy, 2009; Joesaar et al., 2012; and Occhino et al., 2014), achievement goal theory (Joesaar et al., 2012; Ryska et al., 2002), basic needs theory (Calvo et al., 2010; Quested et al., 2013) and leisure constraints theory (Crane & Temple, 2015) and models of psychology like the developmental model of sport participation. These factors include negative

experiences like lack of fun, coach conflicts, and limited playing time (Fraser-Thomas et al., 2008). Crane and Temple (2015) also recognized lack of enjoyment as a factor and additionally cited perceptions of competence and social pressures as factors. Increased levels of amotivation or a lack of perceived competence and a decrease in the satisfaction of relatedness and autonomy needs were noted in research framed within self-determination theory (Calvo et al., 2010). I argued in the beginning of this research that relationship factors associated with sociological and psychological considerations are likely the root cause for most drop-outs in adolescent sport, and the results of this study support this.

It is critical to expand upon the research to educate not only the athlete, but also the coaches, parents, and all those involved within this particular context of sport concerning the psychological demands of adolescent sport participation. The importance of developing a motivational climate that addresses the consequences of lacking positivity, being laden with negative attitudes, and not enriching the socio-psychological elements critical to athlete persistence is of utmost importance. In interpreting data researched using achievement-goal theory, programs must be developed and implemented that increase the use of task-involving strategies while minimizing or restructuring those behaviors that are ego-involving. Enhancing programs for athletes, coaches, and parents that develop the relationships and strengthen communication can provide some of the most significant impact in minimizing drop-out rates in adolescent sport. The numerous limitations that have been identified through this research that affect long-term participation and persistence in sport provide a foundation of where to begin. Existing organizations and programs like the National Association for Sport and Physical Education (NASPE), the American Sport Coaching Education Program (ASEP) through Human

Kinetics, the International Council for Coaching Excellence (ICCE), the National Council for Youth Sports (NCYS) and the National Federation of State High School Associations (NFHS) are just a few organizations where change can occur.

The National Standards for Sport Coaches created by NASPE (2006) identifies forty coaching standards through eight domains, many of which address the psychological needs of the athlete. Significant emphasis is placed on coaches adopting an athlete-centered philosophy (identified in the first domain) while teaching the positive values of sport that includes participation enjoyment. Although physical conditioning and teaching sports skills and tactics are obviously important in athlete development, equal time must be given to growth and development with psychological consideration. Reflecting back on the foundation of self-determination theory and its three components of autonomy, competence, and relatedness, NASPE standards most certainly embrace the value of psychological development, however as it currently stands, the percentage of adolescent sport programs that commit to these elements with intent are small. Coach intervention education has reached a crucial state. Drawing attention to research studied in this review is just one step in a much needed direction.

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