

**ARE LIFE SKILLS LEARNED THROUGH
TEAM SPORT PARTICIPATION?**

by

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A Paper

Presented to the Gordon Albright School of Education

In Partial Fulfillment of the Requirements

For the Degree of Master of Education

EEA655 Thesis

June, 2014

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TEAM SPORT PARTICIPATION?**

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Dedication

This thesis is dedicated to those who encouraged me to pursue these studies, even though they would have much rather had me alongside them on their many adventures. The past two years of Master's studies would not have been possible if it wasn't for my amazing wife, Shannon, and three wonderful children, Eli, Brynn, and Skylar!

Acknowledgements

To the City University cohort model that allowed for excellent mentorship from professors and outstanding collaboration from colleagues. The learning experience was rich.

To my advisor, Dr. Charles Scott, for his enthusiasm for research, time put in to reading every word written, and expertise in providing great feedback throughout the process.

To Dr. Jill Taggart, for her exceptional ability to analyze data and also give thoughtful explanations along the way.

To my brother Jonny, for plowing through this Master's program with me and being a great motivator and supporter.

Table of contents

	Page
TABLES and FIGURES.....	vii
ABSTRACT.....	viii
CHAPTER 1: The Problem.....	1
1.1: Introduction	1
1.2: Background to the Problem.....	2
1.3: The Research Question.....	4
1.4: Purpose of the Study.....	4
1.5: Statement of Research Hypotheses.....	5
1.6: Importance of the Study.....	6
1.7: Definition of Terms.....	7
1.8: Summary.....	8
1.9: Thesis Road Map.....	8
CHAPTER 2: Literature Review.....	9
2.1: Introduction	9
2.2: Neurobiological Effects of Sport.....	10
2.3: Life Skills and Team Sports.....	11
2.4: Conceptualization of Surveyed Life Skills.....	14
2.5: Sport and Preparation for Life.....	17
2.6: Coaching Roles in Developing Life Skills.....	18
2.7: Summary.....	20
CHAPTER 3: Methodology.....	21
3.1: Introduction	21
3.2: Description of Research Methodology.....	21
3.3: Research Design.....	22
3.4: Selection of Subjects.....	22
3.5: Participants.....	23
3.6: Ethical Considerations and Risks.....	24
3.7: Instrumentation.....	24
3.8: Data Collection and Recording.....	26
3.9: Data Analyses.....	26
3.10: Limitations.....	27

CHAPTER 4: Results and Discussion.....29

 4.1: Introduction29

 4.2: Descriptive Statistics.....29

 4.3: Inferential Statistics.....31

 4.4: Summary.....37

CHAPTER 5: Summary, Conclusion, Implications, and Recommendations.....39

 5.1: Summary39

 5.2: Conclusions.....40

 5.3: Implications.....44

 5.4: Recommendations.....45

REFERENCES.....48

Tables and Figures

	Page
Table 1: Mean difference, with SD, between genders on value of participation (females high)...	32
Table 2: Mean difference, with SD, between genders on value of participation (males high).....	33
Table 3: Mean difference, with SD, between number of teams played on in high school on value of sports participation	36
Table 4: Pearson correlation of Number of Teams Played on and themes, with means and standard deviations.....	37
Figure 1: Bar graph representing the gender percentage breakdown of the sample.....	30
Figure 2: Bar graph representing the percentage breakdown of the sample by number of teams.	30
Figure 3: Bar graph representing a significant relationship between number of teams played on and ability to deal with pressure	35

Abstract

The aim of this study was to investigate the perceived impact of team sport participation on the development of future life skills. Thirty-two participants ranging in age from 18-25 consented to participate in the quantitative study. Each of the participants completed an online survey through Fluid Surveys, a secure online software program approved for use in Canadian universities. The data was entered into SPSS (Statistical Package for the Social Sciences) for analysis. The data revealed that positive correlations were seen in all of the four categories tests (effective communication, ability to deal with pressure, ability to work collaboratively, and development of a strong work ethic). The research showed that females rated higher than males in their perception of team sports had aiding in their ability to work through stress situations and work collaboratively as a team. Alternatively, male participants rated higher than females on team sports effect on work ethic, ability to deal with pressure, and effect on social skills. The relationships of the number of teams played on and the participant's ability to deal with pressure and handle anxiety was the more significant trend found. As the number of teams played on increased, the perceived ability to deal with anxious situations also increased. Trends towards significance were depicted in the responses for ability to communicate effectively and work collaboratively as a team as the number of teams participated on increased. The results highlight the importance of athletic programs to ensure that core values and mission statements are formed in line with the reliable data and research.

Team Sports and Life Skills

Chapter 1

The Problem

Introduction

The emotional highs and lows that occur while playing on a sports team are difficult to match in any other areas of life. These emotions, however, are temporary, and usually only last for a few brief moments. Most would agree that great memories are formed both on and off the court while playing on a team, and these experiences provide stories that are told for years to come. The questions that continuously rise to the surface of discussions among parents are: Are those temporary moments of joy that are only earned through hours and hours of training, commitment, and sacrifice really worth it? Are there some core values that are learned through participation in sport that truly help people in their future endeavors and help develop life skills.

During the 2014 Sochi Olympics, Scott Russell was interviewed by George Stroumboulopoulos on CBC Television. Scott Russell has covered 11 Olympic games and is a very passionate about the impact that sports has on individuals. In this interview, Russell (2013) described the multitude of benefits that sports has on the development of children and how so many life lessons can be learned through sports. Russell elaborated on the ways that sport teaches kids how to compete, how to be part of team, and how to win and lose with grace and dignity. Furthermore, he discussed the importance of being physically literate and the importance of providing opportunities for youth to develop their physical bodies to their fullest potential. Play is a natural part of our being that is portrayed a very young age. Team sports allow participants continue to “play” and to learn about themselves and others in a wide variety of ways (Russell & Stroumboulopoulos, 2013). The goal of this study is to delve a little deeper into

the potential influence that sport can have on one's life. The research will investigate the lasting effects that participating on one or more high school sports teams has had on various life skills.

Background to the Problem

Continuing to uncover concrete data of the benefits of sport is important for a number of reasons. Informing society of the positive effects of sport not only for the present, but also the future will aid in encouraging active, healthy lifestyles. If this study can help inspire and motivate more people to participate in activity, perhaps it is another tool towards lowering the obesity and diabetes crisis around the world. The physical and health benefits of activity seem to be known, but unfortunately, overlooked by people all around the world. The Canadian Diabetes Association (2014) wrote that, "physical activity can be as powerful as glucose-lowering medication...with fewer side effects" (p. 1). The article goes on to reveal that fitness level is one of the greatest predictors for cause of death in people with diabetes, with a low fitness level posing just as high of risk for death as smoking (CDA, 2013). Inactivity, and thus, obesity, has developed into a major health issue all around the world. The World Health Organization's (2014) statistics read that around 31% of adults ages 15 and up are insufficiently active. Approximately 3.2 million deaths each year are attributable to insufficient physical activity and obesity (World Health Organization, 2014). In North America, the numbers for people who are at risk of developing chronic diseases are continuously rising. In the U.S., obesity rates rose from 14% from 20 per cent in 1997, to 24 per cent in 2009. Canada is very similar, with obesity rates increasing up to 24 per cent in 2009 (Hodgson, 2010). Sports are one avenue that can help in tackling these issues. If participation increases, overall health of society will also increase.

A study by Fredricks and Eccles (2006), measured the impacts that extracurricular activity has on high school students. The research concluded that it is very important that there

are many opportunities for youth to participate in extracurricular activities (Fredricks & Eccles, 2006a). Holloway (2000) determined through his study that school districts must look at the research and data regarding extracurricular activity before making possible cuts to these programs. In many cases, achievement scores are higher and high school success rate is increased due, in part, to the sense of belonging and skills that are learned through extracurricular involvement (Holloway, 2000).

Unfortunately, there are also many barriers that prevent “participation by all” when it comes to team sports. First, there are situations where opportunities are taken away from our youth because of politics among school districts and government. In British Columbia in 2012, teachers voted to withdraw from all voluntary, extracurricular activities as part of a province wide strike action (CBCnews, 2012). Extracurricular activities are those events that are organized by teachers outside of class time. This action struck a chord with the public as many students and parents were frustrated that there was a possibility that sports teams and activities would be cancelled. The lack of volunteers to coach and run sports programs is a problem that is becoming more and more apparent. Coaches are less willing to put in the extra hours required and teacher coaches are not getting the necessary support that they need from the districts. Unfortunately, all of this filters down to our youth and has affected them the most. It would be interesting for further studies to address strategies for building athletic programs that are able to provide many opportunities for team sports while encouraging coaches and mentors to be passionate to help out. The more information that is publicized supporting the benefits of sport, the greater the push will be to continue providing active opportunities for our high school age students. Often, it is schools that are called upon to address the high rate of obesity. Great

leadership can encourage initiatives around health, while maintaining academic standards (Fox, Barr-Anderson, Neumark-Sztainer, & Wall, 2010).

The Research Question

The research question that this study will intend to address is as follows: what are the perceived, lasting effects that participating on one or more high school sports teams has on the future life skills of those involved? The future life skills that the study will concentrate on include the ability to: communicate effectively, deal with pressure situations, work collaboratively as a team, and develop a strong work ethic. Addressing this research question will not only add to the current literature relating to the benefits of sport, but also provide specific data connected to impact that sports has on future life skills. The literature review will provide evidence from research that demonstrates the importance of various life skills for university and career success.

Purpose of the Study

The purpose of this study is to indirectly determine if the attitudes and practices developed through involvement in sports activities in high school are transferred to students for the development of overall life skills. The study will investigate the research subjects' perceptions of the lasting effects that participating on one or more high school sport teams has had on future life skills. If the findings show positive correlations between participation in sports and development of life skills, various avenues within athletics will benefit. Athletic programs will be better equipped to back up their goals and vision with data driven research that demonstrates the importance of sport. Furthermore, coaches, parents, and athletes can come to a better understanding of the benefits of sport not only for the immediate but also for the future.

Statement of Research Hypotheses

A quantitative, non-experimental design will guide the research and a survey will be used to collect data from participants. Participants have all been graduated from high school for a maximum of seven years and each played on at least one sports team while in high school. It is hypothesized that participation in one or more high school sports teams will be positively associated with ability to communicate effectively, deal with pressure situations, work collaboratively as a team, and develop a strong work ethic. The prediction is that the results will show that working collaboratively as a team and developing strong work ethic will have impacted the participants at a greater level than the skills for communicating effectively and ability to deal with pressure situations. The null hypothesis is that there will be no noticeable relationship between team sports and the impacts on future aspirations and life skills.

Importance of the Study

Sports are a major part of many peoples' lives. Many hours are consumed practicing, coaching, watching, and playing sports. A survey was implemented with NCAA Division 1 athletes that gave the estimated number of hours a week that is devoted to their sport. It was found that football players spent an average of 43.3 hours a week on their sport (Wieberg, 2011). Other than the physical and health benefits, is there anything else that is gained from participating on sports teams? If so, what are some of the benefits that carry on to other aspects of life? This study will contribute to the research regarding the perceived benefits of participation in sport. The research will also continue to provide evidence that a well-rounded education system that includes ample opportunity for activity is important for the well being of every individual. It is intended that the findings will help coaches as they pour their hearts and souls into their athletes, will motivate parents to see the long term benefits that result from their child

participating on a sports team, and will help our youth continue to commit to joining sports teams.

Investigating individuals' future life skills due to their past participation in sports is important for all stakeholders. To date, the research connected to the transferability of skills from the sports arena to other area of one's life is limited (Daniel Gould & Carson, 2008). There are numerous studies that give evidence that pertains to the immediate benefits in the areas of academics and social development that participation in sport is having on an individual (Fox et al., 2010). However, there is limited research done that addresses how these learned life skills are utilized further down the road. To increase the credibility and impact of discussions and arguments on this topic, more research must be completed. This study intends to identify the perceived impact that participation on one or more team sports in high has on one's future. The findings in this study will be an asset to the minimal research that is published and serve to help those who continue to provide concrete data of the importance of high school athletics programs. As administrators, athletic directors, coaches and parents collaborate to build athletic programs that have a mission towards life skill development, these studies become increasingly important.

Definition of Terms

For the purpose of understanding the intended meaning behind the terms and concepts that will be focused on throughout the study, definitions are as follows:

1. Extracurricular Sports: Activities that are offered outside the regular curriculum.
2. Team Sports: For this study, included sports are volleyball, basketball, and soccer. Other sports that are offered, but excluded from the study include: track and field, cross-country, badminton, and golf. Team sports are defined as:

Activity performed with the objective of engaging in competition or improving personal sport performance. Sport requires the execution of specialized neuromuscular skills, tactics, and strategies with a substantial degree of difficulty, risk and/or effort. Competition normally occurs within a structured environment with an explicit and/or implied code of conduct and fosters the development of certified coaches, athletic therapists and strength training personnel. (Vail, 2005, p. 3)

3. Life skills: The ability to manage the stresses and challenges of everyday life and enhance the performance of the people around you (WHO, 1999).
 - a. Communicate effectively – ability to confidently share ideas with others, contribute thoughts to conversations, and be secure in social settings.
“Competence in oral communication – in speaking and listening – is prerequisite to students’ academic, personal, and professional success in life” (Morreale, Osborn, & Pearson, 2000).
 - b. Deal with pressure – ability to competently deal with challenging situations, cope with pressure and work through life’s stressors. “This may mean that we take action to reduce the sources of stress, for example, by making changes to our physical environment of lifestyle” (Aparna & Raakhee, 2011).
 - c. Work collaboratively – understand that cooperation and collaboration with groups are important for achieving goals. Developing collaborative skills help us to relate in positive ways with the people we interact with (Aparna & Raakhee, 2011).
 - d. Strong work ethic – ability to demonstrate hard work and self-discipline as a way of life and a means to reaching goals.

Summary

The aim of this study is to indirectly determine if the attitudes and practices developed through involvement in sports activities in high school are transferred to students for the development of overall life skills. Sports have been shown to be beneficial for academic, social, emotional, and physical needs of participants. This study is intended to add to the limited research regarding transferability of life skills from team sports. Through a quantitative, non-experimental design, data will be collected through the deployment of a survey to the alumni of one high school. The survey will ask participants to rate a variety of statements referring to the impact that team sports has had on their current ability to communicate effectively, deal with pressure situations, collaborate in groups, and exude a strong work ethic.

Thesis Road Map

In the next chapter, I will unwrap the literature relevant to the effects that team sports has on the development of future life skills. In chapter three, I will detail my research methodology by outlining the research design, instrumentation used, participants of the study, ethical considerations, data analysis used, and possible limitations in the research. Chapter four will summarize the results and discussions that were drawn from the data. Statistics will aid in interpreting the findings and the themes will be interpreted in written form. In the final chapter, a summary of the paper will be presented. Conclusions, a discussion of implications from the findings, and recommendations will provide closure to this study, but more importantly, suggest opportunities for further research on this theme.

Chapter 2

Literature Review

Introduction

Sports play a major role in societies and across cultures. Whether you are a participant, coach, official, or fan, sporting commitments take up a lot of time. Sporting events intrigue us and many people will schedule their weeks around “their” team’s game schedule. During the 2014 Olympics, CBC reported that 15 million people in Canada tuned in on their TV to watch the gold medal hockey game (Haupt, 2014). Hockey Night in Canada on Saturday nights has been a staple for Canadian families for decades as parents and children will huddle around the screen to cheer on their teams. As students enter high school, parents are awoken to the demands that team sport commitments have on their families. Parents are the chauffeurs for their children as they drive them to and from numerous sporting practices and games throughout the week. At an early age, athletes are forced to learn how to manage their time in order to juggle their academics, family commitments, community obligations, and extracurricular demands. The pressures to ensure that your child has been granted every opportunity that will “help them succeed” are evident in parents. The professional sports arena paints an iconic picture of sports as many athletes are highly prized within our culture. Athletes are seen as celebrities as they are paid huge salaries, given ridiculous endorsements, are given roles as spokespersons for various causes, and seen as icons by many. In youth sports, coaches of sports teams will often speak very highly of their programs and continuously ramble off the many benefits that playing on a team will have for each of the athletes. Parents feel compelled to put their child into sports or risk the possible benefits that he or she would get out of participating. What are the benefits? What does the research say to backup these claims?

The purpose of this study is to provide evidence that there are key areas of growth that occur through the mentorship, commitment, and dedication of playing on a sports team. The United Nations Inter-Agency Task Force on Sport summarized the positive influence that sport can have on one's character with this statement: "Sport provides a forum to learn skills such as discipline, confidence, and leadership and it teaches core principles such as tolerance, cooperation and respect. Sport teaches the value of effort and how to manage victory, as well as defeat" (UNOSDP, 2003).

I will now examine the various impacts participation in sports has for individuals beginning with neurobiological impacts and then moving to the development of life skills.

Neurobiological Effects of Sport

The positive effects of activity must initially be traced back to the anatomy and physiology of our bodies. We are left in awe and amazement when we unpack the adaptations that occur when we begin exercising. The purely physiological and physical health benefits are well known and need not be recounted in detail here. As muscles begin to contract, our lungs are required to control an increase in breathing rate to bring in oxygen, the heart is required to beat quicker to ensure that oxygen is transported to the muscles efficiently, and our body temperature rises causing perspiration as a means of preventing overheating. As all of these cardiovascular and respiratory changes are occurring during exercise, there are also neurobiological effects that result. Research has shown that the positive effects of physical activity on serotonin reuptake are instrumental in controlling moods and behavior. A study done by the University of Brussels in Belgium gave evidence that brain neurotransmission is positively influenced by exercise (Meeusen & Meirleir, 1995). Young (2007) writes that a positive mood, through increasing levels of serotonin, is an important predictor of health and longevity. Further research also

supports the view that exercise increases brain serotonin. The two means by which activity increases serotonin are, “First, motor activity increases the rate and frequency at which serotonin is ‘fired’ within the brain, resulting in an increase in both the release and synthesis of it. Secondly, regular exercise increases the level of tryptophan in the brain (an amino acid used to manufacture serotonin)” (Turcotte, 2013).

Life Skills and Team Sports

Life skills are most prevalently described as those skills that enable people to operate successfully in a variety of environments. “Life skills can be behavioral (communicating effectively with peers and adults) or cognitive (making effective decisions); interpersonal (being assertive) or intrapersonal (setting goals)” (Ajzen, 1991, p. 40). Ajzen (1991) writes that many effective life skills may be learned in the sport environment. Ajzen discusses that it is important to understand how these life skills are transferred to settings outside the sport arena (Ajzen, 1991). The World Health Organization (1999) defines life skills as “the ability for adaptive and positive behavior that enables individuals to deal effectively with the demands and challenges of everyday life” (WHO, 1999). Our society is becoming increasingly complex and connected. The need for flexibility and decision-making skills are ever more present. Aparna, N. & Raakhee, A. (2011) discuss the role that education plays in developing life skills. Through life skills education, students are taught strategies to make healthy choices that contribute to a meaningful life. The skills that are taught include: leadership, responsibility, communication, intellectual capacity, self-esteem, and interpersonal skills. “Every education system should impart life skill education as part of its curriculum as it is capable of producing positive health behavior, positive interpersonal relationship and well being of individuals” (Aparna & Raakhee, 2011).

Schools desire to provide meaningful learning opportunities to aid in preparing students for their future endeavors. One avenue that has proven to be very beneficial for character development in youth is team sports. Team sports are defined as:

Activity performed with the objective of engaging in competition or improving personal sport performance. Sport requires the execution of specialized neuromuscular skills, tactics, and strategies with a substantial degree of difficulty, risk and/or effort. Competition normally occurs within a structured environment with an explicit and/or implied code of conduct and fosters the development of certified coaches, athletic therapists and strength training personnel. (Vail, 2005, p. 3)

In Gould and Carson's (2008) journal article, they make it very clear that the skills developed through participation in sports must be transferable to other areas of life: "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 setting" (p. 60).

Prior to this study, numerous studies have addressed the impact of team sport participation on various areas of youth development. Team sports have proven to be beneficial for academic, social, and physical development (Fredricks & Eccles, 2006b; Holloway, 2000). Holloway (2000) completed his research with high school aged males and females who were all participating on a soccer team during the season of play. An academic measurement was taken during the season as well as after the season was concluded. The results concluded that both the girls and the boys held higher GPAs in season than out of season (Holloway, 2000). Another study was completed with students in grades 7-12. The research was done over three years and

addressed the impact that duration and the amount of physical activities had on academic and psychological development of the participants. The data concluded that sport participation caused lower levels of depression and high levels of self esteem in the high school years (Fredricks & Eccles, 2006a).

In a recent study, Anderson (2011) discovered that college age students identified various life skills that they had developed through their participation on an Equestrian team. Between 2009 and 2011, 142 undergraduate college students completed surveys as a means to collect the data. The results demonstrated that nearly 80% of the participants indicated that participation on the team had a positive influence on life skill development. In addition, 78% of the participants indicated that they learned to be more adaptable in new situations due to their involvement on the team. The participants recognized the following life skill areas to be most impacted by being part of a team: 1) working with others, 2) communication, 3) responsibility, 4) teamwork, 5) organization, and 6) relating to different people (Anderson, 2011). Even though this study was done with students that had graduated from high school, it provides evidence that the benefits derived from being part of a team can be seen at various ages.

Goudas and Giannoudis (2008) performed a study that assessed the impact of life skills programs in a physical education class setting. Their findings supported the influence of life skills beyond the school as long as the physical education teachers were diligent in using the recommended curriculum. The life skills program in this study demonstrated an ability to equip students with various skills that will aid in successfully dealing with many of the complex situations throughout their lives (Goudas & Giannoudis, 2008).

A study performed by Trudel et al. (2012) analyzed the differences in opinion between stakeholders (administration, coaches, parents, and athletes) in their perceptions regarding

positive effects of sport. Interestingly, with regard to the development of life skills through high school sport, the athletes had very differing opinions than the other stakeholders. The athletes had much lower expectations that their participation on sports teams would help develop various skills and prepare them for aspects of life. Whereas administration, coaches and parents viewed sports as a means to develop core values such as fairness, honesty, and respect, athletes saw sports as an opportunity to primarily develop sportsmanship and teach goal setting strategies (Trudel, Forneris, & Camire, 2012). This study shows us that determining what variables are at play in the development of life skills is a very complex topic. The findings demonstrate the need for further research on the specific ways that team sports can aid in develop.

Conceptualization of Surveyed Life Skills

The World Health Organization (1999) identified five basic life skills that are relevant across every culture. These include, 1) problem solving, 2) critical thinking, 3) effective communication skills, 4) self awareness, and 5) coping with stress. Life skills are important for healthy development and to help prepare adolescents for their future (WHO, 1999). Many life skills are necessary to maneuver your way through life. For the present study, four key life skill themes were chosen to guide the statements in the survey. The life skills that were identified in this study included, 1) ability to communicate effectively, 2) to deal with pressure situations, 3) to work collaboratively as a team, and 4) to maintain a strong work ethic. These four themes were chosen after reviewing a wide variety of literature and after deploying a pre-survey item analysis. The item analysis narrowed the themes down into topics that the participants could more easily identify with. The literature demonstrated that the chosen themes were important for individual pursuits and successes for the present and the future. The following is a detailed description of each of the tested life skills.

Effective communication. Developing an ability to communicate effectively is important for future roles. Furthermore, research has shown that the skill of communication is not just a verbal skill. Ryan (2010) in a leadership article written for the Center for Creative Leadership, wrote that successful people spend just as much time listening and learning from others as they do talking. In school, good communication is demonstrated in the form of speech, writing, reading and in the many non-verbal or non-written communication skills we can develop. Trilling and Fadel (2009) extend the fundamentals of good communication to include, 1) ability to articulate thoughts and ideas effectively, 2) ability to listen effectively and interpret meaning, values, and attitudes, and 3) ability to use communication to inform, instruct, motivate, and persuade.

Ability to deal with pressure. We are required to deal with anxious situations and make decisions under pressure on a regular basis. Stressors and anxieties are dealt with differently from person to person. Some people are able to make decisions with ease and low emotion, while others require a great deal of energy and emotional toil to make the seemingly same decision. If we are able to take part in certain activities when we are young to help us in our problem solving and decision-making, we will be much calmer in pressure situations. Exercise in any form has been demonstrated to relax the body and mind, therefore reducing stress and anxiety (University of Sydney, 2011). Yukelson (2002) writes that sports can help develop the ability to handle pressure by: 1) learning how to regain psychological control in the midst of unexpected events or distractions, and 2) learning how to accept that anxiety will always be a part of competition, but understanding how to cope with it (Yukelson, 2002). The uniqueness of competition allows opportunities to learn how you and others deal with pressure. These are skills that will be utilized many times throughout life without even knowing it.

Importance of collaboration. Effective collaboration requires trust and respect among a team of people. On a sports team, trust and respect between team members will result in a high level of team cohesion. The importance of cohesion and collaboration also apply to other areas of life. The majority of occupations require some form of collaboration and an ability to work within a team for you to be considered for employment. In a business setting, cohesion among employees and trust and respect between all levels of management is important to run a company successfully. Edmondson and Watkins (2003) discuss the significance of developing a high level of psychological safety within a team. Effective teams have built a high level of trust and openness between members. When this openness is achieved, ideas are shared between each other because the group knows that it will enhance performance. Individual contributions are valued and there is a shared responsibility for reaching the goals (Trilling & Fadel, 2009). Some of the characteristics that are beneficial for members of any team or group to develop are open communication, willingness to take input and listen to others, ability to show weaknesses, being trustworthy and honest, and being willing to take risks (Edmondson & Watkins, 2003).

In a study done with the company KONE, 250 of its top leaders were sent through a leadership program that placed a high value on building collaborative teams and equipping leaders with strategies to know how to work together. The results of this initiative to increase teamwork and collaboration were amazing. The company market shares and profits rose considerably, there was a 70% drop in safety incidents, and customer satisfaction tripled (Ryan, 2010). These studies have demonstrated the importance of teaching and developing the skills of teamwork and collaboration at a young age. When an organization functions as a nucleus and works hard at building relationships, work ethic increases and performance is enhanced (Vimba,

Coetzee, & Ukpere, 2013). The sports environment has proven to be one avenue that can aid in fostering these important life skills.

Strong work ethic. It is assumed that developing a strong work ethic at a young age will be beneficial to future tasks and careers. A strong work ethic has been proven to be one of the most valuable attributes in an employee. In the Forbes edition of *15 Traits Of The Ideal Employee*, work ethic and ability to deal with heightened stress levels are both noted (Sundheim, 2013). A study by Vimba, Coetzee, & Ukpere (2013) addressed the concerns of decreased performance in organizations to see if there is a link connected with lower work ethic among employees. It was concluded that strong leadership work ethic is dependent on the work ethic values held by each individual. However, the study also found that much of the motivation towards a strong work ethic came from the extent to which upper management encouraged and collaborated with employees that they did their work (Vimba et al., 2013). If employers are given the skills, support, and given a picture of the vision, they are more likely to exude a strong work ethic (Perrin & Avergun, 1999).

Sport and Preparation for Life

Many discussions in the field of education resolve around the ways in which leadership in education is preparing youth for their futures. Extracurricular involvement has been proven to help in the transition from high school to future education and employment. (Tchibozo, 2007). There have been various other peer-reviewed articles that address sport participation to be a positive factor in future aspirations after high school. Research has shown that sport participation is a good predictor of having a career with autonomy by the age of 24 (Eccles, Barber, Stone, & Hunt, 2003). Other research has found that both male and female athletes have higher educational aspirations, higher positive adjustment rates later in life, and less discipline

problems than non-athletes (Barber, Eccles, & Stone, 2001; Fejgin, 1994). In a qualitative study, interviews with athletes demonstrated that important life skills were learned through their involvement on a high school soccer team (Holt, Tink, Mandigo, & Fox, 2008). In this study, the life skills that were learned through the mentorship of coaches involved learning to set realistic goals, manage time effectively, and understanding how to take responsibility for oneself.

Businesses are continuously researching and testing new methods of management and employee motivational strategies. Research has proven that there are many skills that are similar as well as transferable between the sports medium and business medium. One study presented research that showed that many organizations are using sporting analogies and methods to train their employees and run their companies (Liu, Srivastava, & Woo, 1998). If a manager, for example, acted more like a team coach, he or she may have better results building a cohesive team within that company. By spending quality time with employees and being intentional with teaching all the members the important skills and techniques that enable them to become leaders, the overall corporate culture would be enhanced (Liu et al., 1998).

Research, however, is limited on the transferability of life skills that athletics programs are aiming at teaching. Gould and Carson (2008) have proposed that research that needs to be developed are studies that examine whether the skills that are taught in the sports setting, continue to be applied in other settings once participation is complete (Gould & Carson, 2008).

Coaches Roles in Developing Life Skills

Coaches are referred to as mentors for athletes as their leadership position requires that they demonstrate positive role modeling to their team. The personal characteristics and skills of coaches are essential in the level of life skills developed in athletes (Holt & Neely, 2011). Cote and Gilbert (2009) summarized the effectiveness of a great coach demonstrates, “The consistent

application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection and character" (p. 316). Coaching is a significant challenge as the expectations of athletes, parents, and the community all fall under the control of the coach and the leadership decisions that she or he makes. A successful coach will have his or her core values and philosophy well thought through so that the goals and decisions for the team will be reflected through them.

Gould, Collins, Lauer, and Chung (2007), directed a study involving 10 football coaches who were known for their unique abilities to teach life skills to their athletes through their coaching styles. Through the study, it was summarized that each of the coaches had four key factors that influenced their ability to educate their athletes. These factors included 1) a well-grounded philosophy regarding life skills, 2) ability to build strong relationships, 3) the ability to implement a variety of strategies for teaching life skills, and 4) implementing a number of strategies for player development (Gould et al., 2007). Another study showed that coaches who built positive rapport with athletes, taught goal setting and related sport lessons to life showed a relation with positive developmental experiences and connections to life lessons (Goudas, 2010). One article did an excellent job summarizing the importance of team sports and the mentorship of a coach:

The role of coach encompasses a huge obligation to shape the character of athletes by emphasizing respect, responsibility, fair play, and sportsmanship. When coaches help athletes prioritize their academic work, learn interpersonal and social skills, and develop and display their physical abilities to their potential, these athletes are more likely to keep winning in perspective and prepare themselves to become productive members of society. (Lumpkin & Stokowski, 2011, p. 128)

It is evident that respectable and effective coaches must believe and embody the values that our adolescents need for their future. The mentorship that occurs in a player-coach environment is difficult to match. The help is that coaches do not compromise the pressures of “winning at all costs” for the opportunities to positive impact young athletes.

Summary

Participation in team sports has been identified as a factor that has positive benefits on many aspects of life. The literature review demonstrated positive effects for overall health and neurobiological effects that aid in controlling stress and anxiety (Meeusen & Meirleir, 1995). Other studies expanded the research to include research into the effects that participation in sports can have on skills such as goal setting, emotional control, self-esteem, and work ethic (Gould & Carson, 2008). Further studies concluded that team sports were shown to be beneficial for academic, social, and physical development (Fredricks & Eccles, 2006b; Holloway, 2000). Some of the research on this topic went directly to the source and surveyed current members of teams to ask for feedback on the life skills learned. A study by Anderson (2011) discovered that the participants recognized six key areas most affected by being part of team. These included, 1) working with others, 2) communication, 3) responsibility, 4) teamwork, 5) organization, and 6) relating to different people. It will be seen that the results of this study will reflect some of these areas closely as the ability to communicate effectively, to deal with pressure situations, to work collaboratively as a team, and to maintain a strong work ethic are addressed. The research question that will be addressed through the following Methodology, Results, and Conclusion chapters is: What are the perceived, lasting effects, if any, that participating on one or more high school sports teams has on the future life skills of those involved?

Chapter 3

Methodology

Introduction

This chapter will outline and explain the research methodology that was used in this study.

Description of Research Methodology

A quantitative, non-experimental design will guide the research and the use of survey will be used to collect data from participants. McMillian and Wergin (2010), authors of *Understanding and Evaluating Educational Research*, provide a very useful tool for analyzing articles. The book contains a variety of quantitative and qualitative research articles from a number of professional journals. The analysis and exercises included in the book offers necessary information for ensuring that one's research follows the correct methodology. McMillian and Wergin (2010) define quantitative research as, "research which involves the use of numerical calculations to summarize, describe, and explore relationships among traits" (p. 4). The researcher will not have control over what may influence the participants' responses, and therefore, this will be a nonexperimental study (McMillan & Wergin, 2010). The purpose of a non-experiental design is to describe the current, percieved impact that team sports have on an individual and the development of life skills. A correlational approach will allow the research to investigate the relationship between team sports and the perceived development of life skills as a result of participation (McMillan & Wergin, 2010). A carefully designed survey will allow participants to reflect on their experiences as they rate statements using a 5-point scale. The use of a survey is intended to allow participants to complete the study on their own time without any unnecessary pressure or stress that a qualitative approach may have. The advantages using the 5-

point scale survey method include: 1) statements are simple and easily understood, 2) responses are easily measurable, 3) participants are able to respond to the topic within a range as opposed to providing a concrete yes or no answer, 4) data collection and response coding is efficient, and 5) an online deployment method will be relevant to the age of the participants (LaMarca, 2011). Included in the demographic section were questions regarding gender, number of sports teams that were played on, and number of years that the participants has been graduated from high school. Information regarding cultural background, religion, and professional experience was not included, as these data were not necessary to answer the research question.

Research Design

The independent variable for the study is participation on team sports in high school. The dependent variable is the perceived impact of team sports on a high school students on the development of various life skills. During the process, the researcher did not manipulate the variables and comparison groups were not included. The most effective method to operationalize the data for this study was through a survey.

Selection of Subjects

A total of 86 alumni from Langley Christian School, located in Langley, British Columbia, were recruited to participate in the study. The sample size reflected the ability to locate contact information for as many graduates as possible. Emails were sent out to the 86 person sample informing them of the study and asking them to participate by returning a City University consent form. It was clearly indicated that their participation was entirely voluntary, that no negative consequences would result should they choose not to participate, and that they may discontinue their participation at any time without any negative consequences. The recruitment statement read:

I am conducting a survey as part of my graduate studies at City University. I am wondering if you would be interested in participating in a short survey. The survey will ask a series of questions that relate to the impact that playing high school sports has had on various life skills. The survey will take approximately 10 minutes and will be completed using an online electronic program. Your involvement is completely voluntary and you may withdraw at any time. All responses will be anonymous and all information from participants will be kept confidential; maintaining confidentiality of those who participate is of highest importance for me as a researcher. Please reply if you will be willing to help out in this research project. I have attached a City University Research Participant Informed Consent Form that you can complete if you are willing to participate. If so, please return the form to me at the address indicated. Upon receiving your consent form, I will send you a link to the electronic survey. A coding system will ensure anonymity and all data will be kept strictly confidential. No one but me and my research supervisor at City University will have access to the raw data. If you have any questions, you are free to contact me at any time using the contact information I have provided. Thank you for your consideration.

Participants

In order to participate in the study, participants had to have met the following criteria: (a) graduated from high school between 2007 and 2013; and (b) participated on one or more sports teams while in high school. With this criterion, the age of the participants was between 18-25. Of the 86 alumni that were contacted through email and invited to participate, 32 replied to the email and attached their signed consent agreeing to participate in the study.

Of the 32 participants who completed the survey, 13 (40.6%) were female and 19 (59.4%) were male. The years that participants have been graduated from high school were quite even with the exception of those who were graduated for more than 5 years (40.6%). The remaining percentages of years since graduation included, 4 years (18.8%), 3 years (15.6%), 2 years (15.6%), and 1 year (12.5%). The amount of teams that were played on for each of the participants was 1 team (18.8%), 2 teams (21.9%), 3 teams (21.9%), and more than 3 teams (37.5%).

Ethical Considerations and Risks

City University of Seattle requires that a study that involves human subjects be submitted to the Institution Review Board for review and approval; similar approval was sought and received from the school district. Once approval was granted, work on this project began. Each of the participants signed a consent form giving permission for their data to be used in the study. Coding ensured anonymity and confidentiality. There were no foreseen dangers in the study that may have caused physical harm to the subjects. There was a minimal possibility of emotional harm as completing the survey may have brought up sensitive memories; in that eventually, I was prepared to provide the names of licensed counselors in the community so that participants could, if they wished, address any such issues that arose. Participants reflected on the past few years of their lives to see if there are life skills learned through team sports that have transferred to their present day lives. Overall, any dangers in running this study were categorized as very minimal.

Instrumentation

The instrument chosen to gather data for this study was a survey. The survey consisted of twenty statements referring to possible impacts of participating on a team. Prior to formalizing

the survey, 40 statements were written and then analyzed through an intense item analysis procedure. First, all the statements were keyed as either positive or negative items. Next, 10 participants were given the survey draft and asked to complete the survey with honest responses. These responses were used to analyze the validity of each of the statements. For each item, the numbers on the rating scale were given point values depending on whether the statement was negative or positive. All of the point values for each statement were then added up to give a total score for each of the completed surveys. The top 3 and bottom 3 scores were separated from the 10 surveys which were then put through the item analysis. Determining the Maximum Discrimination Method (Dmax) was done by dividing the D observed (high group – low group) by D maximum (high group – low group). The D maximum for this sample was 12 (15-3=12). Then, using the values from the statements for both the high group and low group, the D observed was determined. For each of the items, calculations were made using this equation: D observed / D maximum. Statements were analyzed using the following scale: <.25 = reject; .25-.30 = revise; >.30 = retain. The item analysis narrowed the survey down into 20 statements. The process for the item analysis followed these guidelines (Abeles, 2010).

The survey statements reflect the following themes: ability to communicate effectively, deal with anxiety and pressure situations, importance of collaboration and teamwork, and significance of work ethic; these are the four themes previously identified in the literature review (World Health Organization, 1999). The survey was setup in two sections: (A) Demographics; and (B) Rating Scale. The demographic section asked for gender, amount of team sports played on, and how many years the participant was out of high school. In section B, participants recorded their answers using a 5-point Rating Scale. The rating scale used the following levels:

(1) Strongly Disagree; (2) Disagree; (3) Neutral; (4) Agree; and (5) Strongly Agree. The survey incorporated an equal number of positive and negative statements.

Data Collection and Recording

Surveys were distributed using Fluid Surveys, a secure online survey software program approved for use in Canadian universities (Fluid Surveys, 2014). When consent was returned from each of the participants, their email addresses were voluntarily given. Participants were sent a link to the survey through their email so that they were able to access the survey on Fluid Surveys. All the responses from the surveys were collected through Fluid Surveys and all the data was kept anonymous. No information that might identify the participants is included in the study report. All the data and information from the surveys will be kept in a locked filing cabinet for 5 years, after which it will all be shredded; any digitally-stored data will be similarly, permanently destroyed.

Data Analyses

Survey analysis will include organizing the data using an ordinal level of measurement. The data will be collected through a survey requiring participants to rank a variety of statements on a scale. In order to provide a meaningful summary, descriptive statistics were used to give a base to analyze the data. The median and mean were calculated for each of the four categories to find the central tendency. Median was calculated by listing all of the values for each category in order to locate the middle value. The mean was calculated by adding together each of the rating numbers and dividing that total by the total number of values. For the mean, calculating standard deviation gave a clear visual of a bell-graph. This visual gave a better picture of the data than the mean alone and helped to identify any outliers that were present. Data for each category were

also transferred onto separate bar charts. These graphs will provide the necessary visuals to assess the data.

Limitations

This study has various limitations. Many of the participants in this study will have known the researcher as either a teacher or coach. This may have caused a bias if participants had rated the statements on the survey with me in mind and not their personal experiences. Participation in team sports is the independent variable; however, there might be several factors related to participation that could play key roles, such as the practices and attitudes of coaches or how participation on team sports was framed by the school. Certain responses may have been influenced by “great memories” as opposed to concrete skills that were developed through the sport. Many of the participants will have also played on different types of sports teams with a variety of coaches, each with a unique experience. In contrast, the sample group that will be surveyed has only participated in one athletic department as they are from one high school. Many of the participants may have likely played for the same few coaches. While these factors increase reliability of the data, they also inhibit the generalizability of the study. The time lapse that the sample group has been removed from high school ranges from 1-7 years. It may be a concern that the longer participants are out of high school, the more imprecise their data may be or, as well, time and time-related variables may play a role in the persistence of transferred life skills. These limitations, along with the ethnic distribution being primarily Caucasian, will result in further questions regarding generalizability.

Past research, however, has demonstrated that the benefits of extracurricular activities have been seen through all ethnic groups and social classes (Fredricks & Eccles, 2006a; Holloway, 2000). If the results of this study show positive correlations between sport

participation and future aspirations, this study will add more specific evidence to the research that has already been completed. By addressing the specific life skills that can be influenced through team sports, administrators, parents, coaches, and athletes will be more informed on the importance of healthy team sports participation.

While limitations exist as a result of the research design, they suggest opportunities for further research, which will be discussed in chapter five. Using a survey to gather data for this study presented both benefits and weaknesses. As benefits, survey implementation is very efficient, allows for large sample sizes, and allows for honest answers, as respondents are anonymous and confidential. On the other hand, participants may skim survey statements quickly and record answers that are not well thought out. Statements may be read in a different way than the researcher had intended. For this study, the deployment of a survey was an effective and efficient way to gather data for the problem.

Chapter 4

Results and Discussion

Introduction

This data collected for this study were intended to determine if the attitudes and practices developed through involvement in sports activities in high school are transferred to students for the development of overall life skills. Through a survey, the study investigated the research subjects' perceptions of the lasting effects that participating on one or more high school sport teams has had on future life skills. The survey, created from Fluid Survey's online software, was deployed to the participants through email. Once the data was compiled in Fluid Surveys, it was entered into the computer program SPSS (Statistical Package for the Social Sciences) for analysis.

Descriptive Statistics

The total number of participants for this study was 32. Of the 32, 13 (40.6%) were female and 19 (59.4%) were male. *Figure 1* shows a visual of the gender percentage breakdown of the sample. In order to categorize the participants and analyze various factors, participants were asked how many teams they had played on in high school and how many years it had been since they had graduated from high school. The number of teams played on by participants was as follows: 6 (18.8%) played on 1 team, 7 (21.9%) played on 2 teams, 7 (21.9%) played on 3 teams, and 12 (37.5%) played on more than 3 teams while in high school. *Figure 2* provides a percentage breakdown of the sample by sports teams played on in high school. The years since high school graduation of the participants was also distributed quite evenly. Of the 32, the following represent the amount of years since graduation: 4 (12.5%) at 1 year, 5 (15.6%) at 2 years, 4 (12.5%) at 3 years, 6 (18.8%) at 4 years, and 13 (40.6%) at more than 4 years.

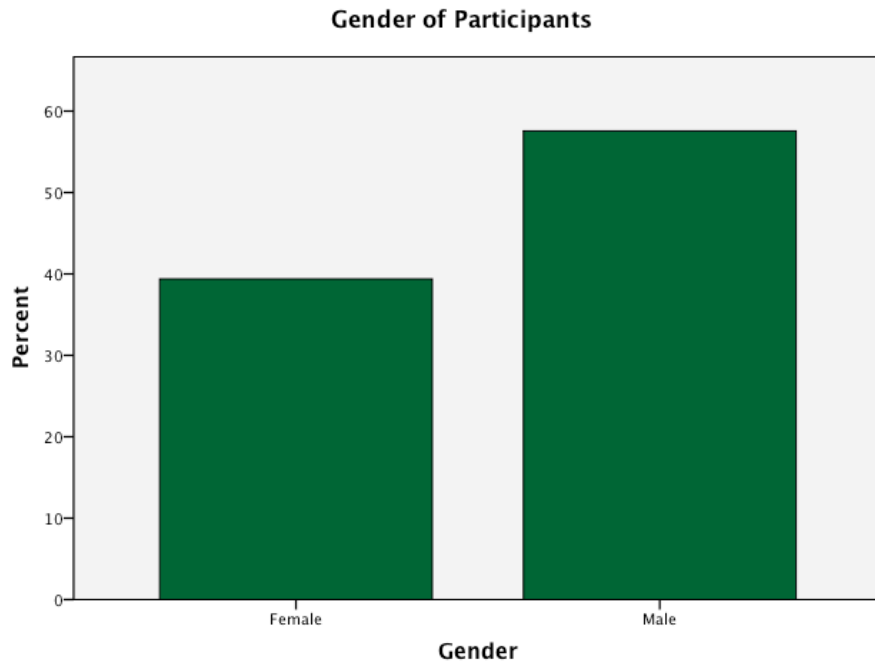


Figure 1. Bar graph represents the gender percentage breakdown of the sample.

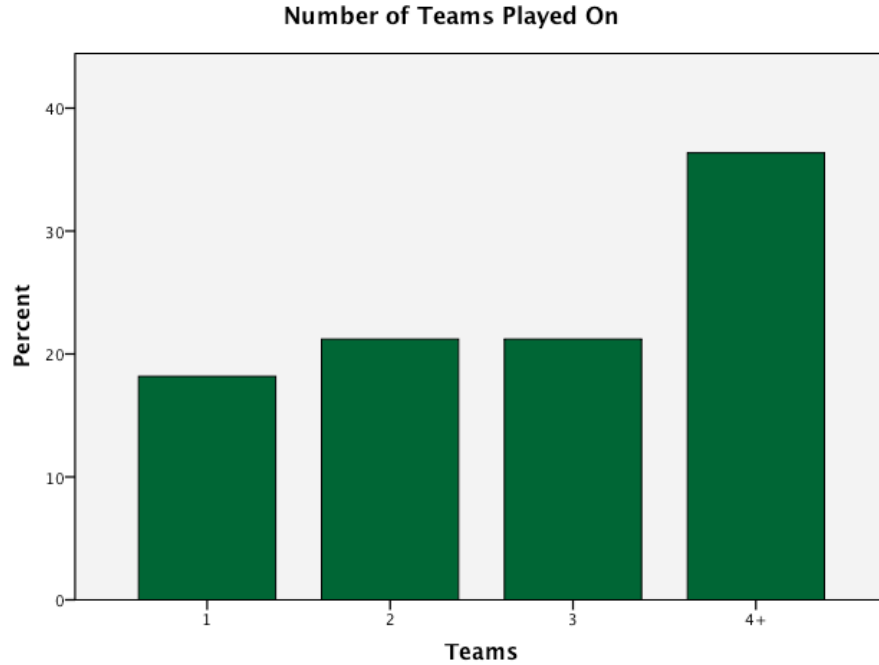


Figure 2. Bar Graph represents the percentage breakdown of the sample by number of sports teams played on in high school.

Inferential Statistics

Prior to data analysis, frequency tables along with histograms were created for each statement to examine the spread of the data for normality and to identify outliers. The results of the histograms showed normal distributions of data and no outliers were identified. Therefore, parametric tools were used to analyze the results.

Gender

An Independent Samples *t*-test was conducted to analyze whether or not gender had an effect on the perceived impact of team sports on the development of future life skills. First, calculations were made to find the Mean score differences for gender by analyzing of all the data together. There was no significant difference in scores between males ($M = 4.21, SD = .20$) and females ($M = 4.18, SD = .20$). However, the Independent Samples *t*-test did illustrate some interesting tendencies in how individual statements were perceived and ranked on between genders. The data indicated that more females found that team sports had aided in their ability to work through stressful situations (female: $M = 3.62, SD = .79$ and male: $M = 3.47, SD = .17$). Additionally, female participants rated higher than male participants that team sports had taught them the importance of teamwork through collaboration and cooperation (female: $M = 4.77, SD = .44$ and male: $M = 4.53, SD = .51$). These findings are summarized in *Table 1*. The data from the male participant group also revealed Mean values higher than females on certain topics. These higher values were consistently shown in the topics of work ethic (female: $M = 4.38, SD = .65$ and male: $M = 4.58, SD = .61$), ability to deal with pressure (female: $M = 3.92, SD = .49$ and male: $M = 4.26, SD = .73$), and social skills (female: $M = 3.46, SD = .78$ and male: $M = 3.68, SD = .89$). *Table 2* summarizes these findings.

Table 1

Mean difference, with standard deviations, between genders on value of sports participation (female values higher than male).

Statement	Theme	Male		Female	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Team sports have helped me work through stress.	Stress	3.47	1.172	3.62	.786
Team sports have helped me not be stressed during challenging situations.	Stress	4.11	.737	4.23	.599
Team sports has taught me that cooperation and collaboration with group members is necessary to achieve goals.	Teamwork	4.53	.513	4.77	.439

Table 2

Mean difference, with standard deviations, between genders on value of sports participation (male values higher than female).

Statement	Theme	Male		Female	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Teams sports have shown me that hard work is necessary to improve and reach my goals.	Work Ethic	4.42	1.305	4.23	1.301
Team sports have inspired me to work hard at everything I do.	Work Ethic	4.58	.607	4.38	.650
Team sports have helped increase my ability to cope with pressure.	Pressure	4.26	.733	3.92	.494
Team sports have taught me how to overcome adversity in uneasy situations.	Pressure	4.00	.816	3.69	.480
Team sports has increased my communication skills.	Social	4.26	.806	4.08	1.038
Team sports has increased my ability to make worthwhile contributions to conversations.	Social	3.68	.885	3.46	.776

When the life skills were grouped thematically and analyzed, there were no significant differences in scores between males and females. The data depicted the following: communicate effectively (male: $M = 3.99$, $SD = .21$ and female: $M = 3.96$, $SD = .21$), deal with pressure situations (male: $M = 3.88$, $SD = .22$ and female: $M = 3.85$, $SD = .18$), work collaboratively as a

team (male: $M = 4.51$, $SD = .14$ and female: $M = 4.50$, $SD = .19$), and develop strong work ethic (male: $M = 4.46$, $SD = .21$ and female: $M = 4.40$, $SD = .21$). The research prediction prior to the study stated that, “the results will show that working collaboratively as a team and developing strong work ethic will have impacted the participants at a greater level than the skills for communicating effectively and ability to deal with pressure situations.” This hypothesis was supported as the mean for both genders combined demonstrated that team sports has a greater impact on developing team cohesion ($M = 4.51$, $SD = .17$) and strong work ethic ($M = 4.43$, $SD = .21$), than ability to deal with pressure ($M = 3.87$, $SD = .16$) and communicate effectively ($M = 3.98$, $SD = .21$).

Number of Teams Played On

The relationships of the number of teams played on and the perceived development of life skills was also analyzed. The results demonstrated trends towards significance. To measure these trends, a one-way ANOVA test was used. The data showed that the more teams that one participated on in high school has a positive effect on the development of certain life skills. The most significant trend was depicted in the participant’s ability to deal with pressure and handle anxiety. The Mean scores increased systematically along with number of teams that were played on. The scores increased in this way: 1 Team ($M = 3.17$, $SD = .75$), 2 Teams ($M = 3.57$, $SD = .54$), 3 Teams ($M = 4.00$, $SD = .00$), 4+ Teams ($M = 4.33$, $SD = .65$.) The level of significance was represented in the ANOVA with these scores ($f_{(df)} = 6.37$, $p < 0.01$). *Figure 5* provides a visual of this significant trend.

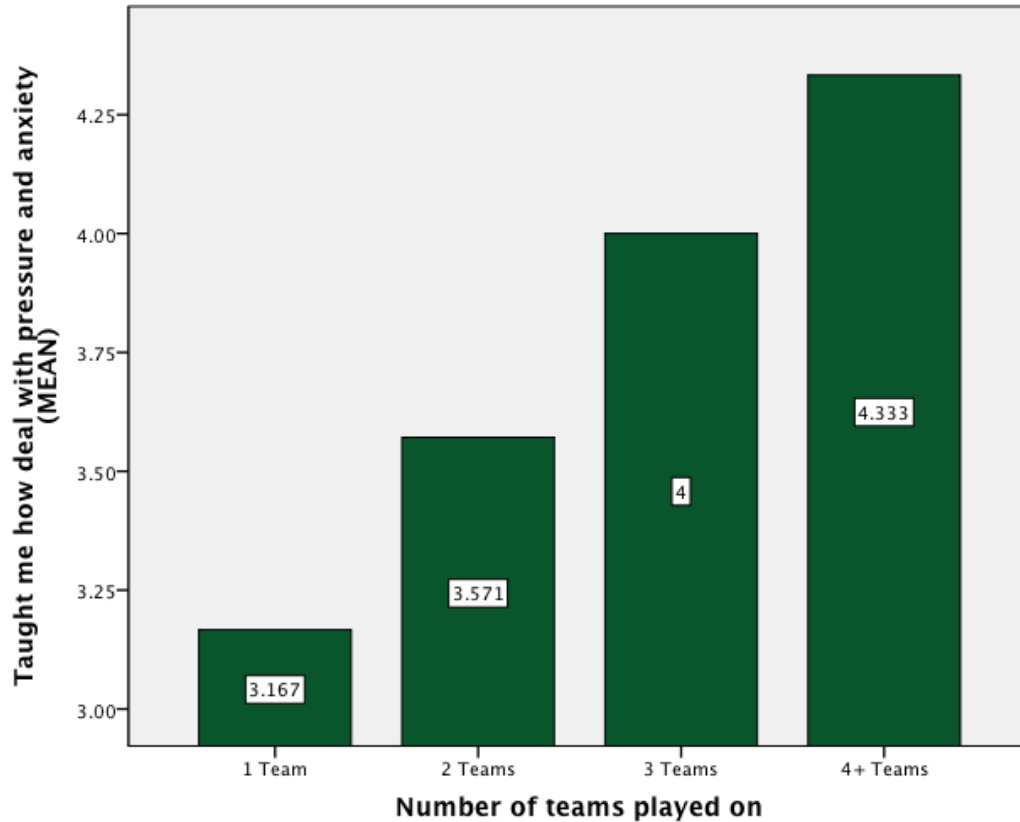


Figure 5. Bar Graph representing a significant relationship between number of teams played on and ability to deal with pressure.

A significant correlation between the number of teams played on and the ability to overcome adversity was also found through a Person Correlation (r) test. As the number of teams played on increased, the perceived ability to deal with anxious situations also increased ($M = 3.88$, $SD = .707$, $r = .64$, $n = 32$, $p > .001$).

Further trends towards significance were depicted in the responses for ability to communicate effectively and work collaboratively as a team. Although the data showed that there was generally very little difference in impact between years 1-3, when participants played on 4 or more teams, a the positive trend was noted. *Table 3* shows the results from some of the more significant responses to the statements.

Table 3

Mean difference, with standard deviations, between number of teams played on in high school on value of sports participation.

Statement	Theme	1 Team		2 Teams		3 Teams		4+ Teams	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Team sports have made me more socially outgoing.	Communicate Effectively	3.67	.816	4.29	.488	4.14	.378	4.50	.674
Team sports have increased by ability to make worthwhile contributions to conversation.	Communicate Effectively	3.00	.623	3.57	.787	3.57	.787	3.92	.900
Team sports have taught me that cooperation and collaboration with group members is necessary to achieve goals.	Work Collaboratively	4.50	.548	4.57	.535	4.57	.535	4.75	.452
Team sports have taught me that cooperation and collaboration are valuable.	Work Collaboratively	4.33	.516	4.29	.756	4.29	.756	4.50	.674

In order to summarize the correlations between the number of teams played on and the life skill theme categories (communication, ability to deal with pressure, teamwork, and work ethic), a Pearson Correlation was used. *Table 4* shows how each of the theme variables is positively correlated and tightly interrelated. Communication ($M = 23.88$, $SD = 3.38$)

demonstrated positive correlations with ability to deal with pressure ($r = .77$, $n = 32$), teamwork ($r = .54$, $n = 32$), and work ethic ($r = .54$, $n = 32$). Ability to deal with pressure ($M = 23.19$, $SD = 3.35$) demonstrated positive correlations with teamwork ($r = .56$, $n = 32$) and work ethic ($r = .42$, $n = 32$). Teamwork ($M = 18.03$, $SD = 1.73$) demonstrated positive correlations with work ethic ($r = .37$, $n = 32$). For each of the themes, as one variable increases in value, the corresponding variable also increased in value.

Table 4

Pearson correlation of Number of Teams Played on and themes, with means and standard deviations

Theme	1	2	3	4	5	<i>M</i>	<i>SD</i>
	<i>n = 32</i>						
Number of teams played on	-	.27	.18	.15	.18	2.78	1.157
Communication		-	.77**	.54**	.36*	23.88	3.377
Deal with Pressure			-	.56**	.42*	23.19	3.345
Teamwork				-	.37*	18.03	1.732
Work ethic					-	17.75	2.476

*Bold indicates significant correlations: ** $p < 0.01$, * $p < 0.05$*

Summary

The data acquired from the survey resulted in some significant correlations and trends towards significance to be made. The following points summarize the significant relationships found through this study:

- All of the life skills categories demonstrated very strong correlations between participation on one or more sports teams and life skill development.

- The data supported the hypothesis as the results for both genders demonstrated that team sports has a greater impact on developing team cohesion and strong work ethic, than ability to deal with pressure and communicate effectively.
- Female participants rated the effect of team sports higher than male participants in the following areas: 1) the importance of teamwork through collaboration and cooperation, and 2) the ability to work through stressful situations.
- Male participants rated higher than female participants on the following topics: 1) work ethic, 2) ability to deal with pressure, and 3) development of social skills.
- As the amount of teams participated on increased, so did the participant's ability to deal with pressure and handle anxiety.

On the contrary, the following points summarize the areas from the study that were not significant:

- The positive effects of team sports on future life skills were all positive, but the difference between each of the themes was minimal.
- No significant trends were found when comparing the data between the ages of participants.

The final chapter will discuss the conclusions and implications that can be drawn from analyzing the data. This information learned from this study will add to the research already completed on this topic, but also lead to many more questions. To complete the final chapter, recommendations will be made for future research.

Chapter 5

Summary, Conclusion, Implications and Recommendations

Summary

The first chapter of this study outlined the problem that prompted further research on the topic of team sports and its effect on future life skills. The question that was posed was: what is the value of students participating in team sports during high school? With the amount of time, energy, and money invested into sport, what are the benefits that last well into the future? There is ample research that gives evidence to the importance of activity for maintaining strong health and wellness, but research is lacking on the impact that sport may have on other aspects of our future lives. The research for this study sought to identify the perceived, lasting effects that participating on one or more high school sports teams has on four particular future life skills of those involved. The future life skills that the study concentrated on included the ability to: communicate effectively, deal with pressure situations, work collaboratively as a team, and develop a strong work ethic.

The literature review provided a backbone for the study. The many articles that were studied gave a broad, yet informative, perspective on the impact of sports on individuals. The review of the literature began by summarizing the positive effects that exercise has on one's mood, emotions, and behavior. Maintaining good levels of serotonin has been proven to be an important predictor of health and longevity. Much of the research also pointed to the character development and life lessons that are taught through sport. Some of the learned skills that were taught through participation in sports included, 1) working with others, 2) ability to communicate effectively, 3) responsibility, 4) teamwork, 5) organization, and 6) ability to deal with complex situations. Although some research concluded that various life skills learned in the sports arena

were very beneficial in the transition from high school to future education and occupations, other studies could not find specific correlations. The research was very clear with respect to what businesses are looking for in their future employers. Interestingly, many of the traits and skills that employers are looking for in candidates are the same traits and skills that the literature reports are learned through sports. A major task, therefore, lies in the ability of a coach to mentor his or her athletes in ways that go much beyond the technical skillset needed for that specific sport. The following sections will highlight the difficult, but fulfilling role that coaches have as they take on these roles.

This study was set up to identify the perceived impact of team sports on future life skills. A quantitative, non-experimental design was used to guide the research and a survey was used to collect data from participants. A carefully designed survey allowed participants to reflect on their experiences and rate statements using a 5-point scale. A survey was used so that participants would be able to complete the study on their own time with no external pressures. The 32 participants were between the ages of 18 and 25, all having played on at least one sports team while in high school. Once the data were compiled in Fluid Surveys, they were entered into the statistical analysis program SPSS for analysis. The data revealed some very interesting correlations that will be discussed throughout the conclusion and implications that follow.

Conclusion

Analyzing Themes. The results of the study have indicated that participation on one or more sports teams while in high school has had a positive impact on current life skills. The themes that were surveyed included the perceived effects on ability to communicate effectively, deal with pressure situations, work collaboratively as a team, and develop a strong work ethic. Even though there were minimal differences in the impact between each of the themes, all of the

categories demonstrated very strong correlations between participation on one or more sports teams and life skill development. In the hypothesis, it was predicted that the results would show that working collaboratively as a team and developing strong work ethic would have impacted the participants at a greater level than the skills for communicating effectively and developing a strategies to deal with pressure situations. The data supported the hypothesis as the results for both genders demonstrated that team sports has a greater impact on developing team cohesion and strong work ethic, than ability to deal with pressure and communicate effectively.

It is unsurprising that the survey demonstrated higher results for team sports developing a strong work ethic and ability to work as a team in the participants. Experiences that occur in sport force each participant to think as a member of a team. Each player must know and understand both his or her roles on the playing field, but also must know the roles of other team members. Each player must know and understand team strategies and understand that individual success is only possible through collective efforts of the team. Work ethic and team collaboration are both foundational to sports. A team's success has been proven to have strong correlations with team bonding and collaboration and ability for the team to work at a high level. However, there may be reasons why the participants rated the statements for communicating effectively and development of strategies to deal with pressure lower than the other two. The participants may have had difficulty relating the nature of these themes to their current situation. The ability to communicate effectively can be taken many different ways. The communication that occurs on the court in sports is often in environments of high energy and intensity. Other forms of communication experienced through sport come from the mentorship, skill, and technical teaching from coaches. Also, communication between teammates is dependent on the leadership and make-up of the group. Participation on a team is a social environment in which social skills

are developed in many ways. The survey proved that the transfer of communication skills from team sports is evident but the specific impacts are not conclusive. For future research, it would be beneficial to operationalize communication in a number of ways to identify and observe the various kinds of communication that occur in sports. It is assumed that the types of communication that would be found would go much beyond the traditional, verbal or written communication. A lot of communication in sports is non-verbal and it would be interesting to further understand what these unique contexts are. Furthermore, future research is needed to determine the ways in which these communication skills are and can be transferred to other areas of life.

Team sports provide many opportunities to stretch participants to take part in activities beyond their comfort zones. Learning new skills and then having to perform these skills in front of an audience can be uncomfortable. Furthermore, athletes at every level are often placed in situations where the pressure is put on them to perform. From penalty kicks in soccer to game-deciding free throws in basketball, sports tests the nerves and anxiety levels of athletes all the time. Thus, it was interesting that the results did not place this theme as high as work ethic and team collaboration.

Differences between genders. The Independent Samples t-test that measured whether or not gender had an effect on the perceived impact of team sports on the development of future life skills identified some differences. The test indicated that female participants rated the effect of teams sports higher than male participants in the following areas: 1) the importance of teamwork through collaboration and cooperation, and 2) the ability to work through stressful situations. On the other hand, male participants rated higher than female participants on the following topics: 1) work ethic, 2) ability to deal with pressure, and 3) development of social skills. Further research

is needed to identify reasons why team sports were perceived to have varied impact between genders. Some of the questions that could be tackled in future studies may include: 1) How do pre- and post-game rituals differ between genders? 2) To what extent does the energy and intensity that is exuded during sport differ between genders? 3) Is there a difference in the work ethic that is expected from coaches between male and female teams? 4) Are male and female athletes motivated and pushed to perform using different strategies? 5) Is there more pressure placed on male or female teams? 6) In what ways do emotional situations shape team culture?

Number of teams played on. The relationships of the number of teams played on and effect on life skills proved to be the most significant factor. The data showed that as the amount of teams participated on increased, so did the participant's ability to deal with pressure and handle anxiety. This is a very noteworthy statistic as the ability to deal with pressure and handle anxiety is very important for all aspects of our lives. The Heart and Stroke Foundation of Canada (2009) has documented the following statistics regarding the effects of stress: 1) stress is a risk factor for heart disease and stroke, 2) one quarter of Canadians report a high degree of stress, 3) no matter where you live, the pressures of everyday life can have an impact on your wellbeing. These facts provide evidence of the importance of having stress reduction capabilities within oneself. Strategies to reduce stress and deal with life's pressures are learned through participation on team sports. As the number of teams participating on increases, so do the number of situations that as an athlete, you are called upon to make decisions and plays in high pace, high pressure scenarios. It is evident that these experiences provide various strategies and coping mechanisms to manage stress. Additionally, learning to handle stress requires repeated opportunities for exposure and practice.

As the number of teams played on increased, the perceived effect on work ethic remained the same. The majority of the participants rated the work ethic learned through participation on a sports team to have impacted them greatly in their future pursuits. Interestingly, the data revealed that it only took participation on one sports team to understand the work required and expected.

Implications

The review of literature and results for this study have demonstrated that participation in team sports is perceived by participants to have a significant impact on the development of life skills that prove to be beneficial later in life. These findings will aid in providing all those involved in sports with data to support their decisions to pursue various teams. The information will aid those who are debating whether or not participation on a team is worth the time, money, and effort. Additionally, this study will be a useful tool for districts and administrators who are deciding whether we should have team sports in school and whether team sports are a necessary part of the budget puzzle.

It is imperative that athletic programs have developed a list of core values that guide the decisions and initiatives that are likely to occur throughout seasons. Furthermore, the strategies and goals for success must be rooted in the data surrounding the benefits of sports on youth. As students, parents, administrations, and the community participate in the many aspects of the athletic program, leaders of the program will be questioned and concerns will be voiced. The data from this study will help guide athletic directors as they give support for the decisions and policies that are in place.

The data and results of this study are only beneficial if the significance of the findings are shared with the major stakeholders. Coaches must understand that their roles as coaches are not only to teach the skills and strategies of their specific sports. Well-rounded and influential

coaches are those who recognize that they have the opportunity to impact the lives of youth much beyond the technical skills and wins in a given season. When coaches understand that the influence and impact that they have on their players will last for many years after the season, success is more likely to occur. The leadership team in an athletic program must ensure that all members of the coaching staff understand these implications and are willing to develop professionally to make sure that the needs of their players are being met both currently and into the future.

Recommendations

Athletic Programs. Leaders of athletic programs must use research and credible data to develop philosophies and mission statements. It is necessary that each individual program make the goals and expectations for success visible to everyone involved. It is recommended that a successful program is one develops a life skills program that runs in unison with each of the teams. In order to this life skills program to be successfully, coaches must be trained and willing to implement these strategies. Life skill instruction must be intentional and must be directly taught to players. Coaches and leaders have to be willing and able to show students how their participation in team sports is an integral part of their overall education.

Coaches. Coaches are mentors. Mentors are those who make a lasting impact on the people that they are in contact with. Those who hire or invite coaches to lead a team must consider the following factors in a coach: 1) a well-grounded philosophy regarding life skills, 2) ability to build strong relationships, 3) the ability to implement a variety of strategies for teaching life skills, and 4) a variety of strategies for player development (Gould et al., 2007). Coaches must be intentional in building a positive rapport with athletes. As coaches plan out their season goals, they must understand that practices, team meetings, games, and away

tournaments are all avenues where life skills will be taught both outright or through the hidden curriculum. It is important and necessary that coaches have thought through and understand the values that can be learned in the sports arena.

Schools. Within the K-12 education system, constant teamwork opportunities are not often found outside of the physical education and fine arts departments. A successful music program provides opportunities for students to work together and find fulfillment and success through hard work, commitment, and good instruction. Likewise, a drama production requires buy in from the entire team of actors, set and costume designers, lighting and sound crews, and the directors. In the traditional education setting, it has been difficult to find activities in the classroom that could parallel the life skills learned through these team settings. However, the initiatives towards project-based learning (PBL) do provide curriculum designs where students are working in a group to complete a task. These PBL opportunities allow students to communicate with each other, face pressures, and collaborate as they work towards meaningful and relevant goals. As with PBL's it will be important to continue to explore various educational initiatives that can serve in meeting the needs of our students in the best ways possible.

Further Research

The research regarding this topic is far from over. Extensions of this study would be to do the same tests on a larger sample and an older sample. This study included 32 participants, resulting in data that is somewhat limited. How would the trends and results change if the number of participants were greatly increased? The age of the participants for this study ranged from 18-25. It would be beneficial to survey a group of participants who are older to observe any differences in their perceptions. Another possibility would be to add a qualitative component. By including a focus group or interviews, some of the issues could be explored more deeply.

One would be naive to believe that the outcomes of participation in sports are all positive. Further research that identifies factors that are detrimental to one's development and character is important. When athletic programs are developing their philosophies and core values, knowledge of what not to do is just as important as knowledge on what needs to be done. Bigelow (2001) writes that being coached to win above all else can have negative effects on creativity, willingness to take risks, and spontaneity. Interestingly, all of these are important ingredients for both athletes and teams as a whole. Rasmussen (2000) provides more evidence for the importance of athletic programs to support total education for students. Sports participation should include education in the areas of honesty, self-esteem, discipline, character development, goal setting and respect for authority. Leaders in athletic programs must understand that these lessons will have amazing impacts on those involved.

Research is limited on the transferability of life skills that athletics programs are aiming at teaching. Further studies must be developed that will examine specifically how life skills are transferred to various aspects of life once participation on teams is complete. These studies will increase the credibility and impact of discussions and arguments on this topic. Additionally, future research must identify the most productive strategies for integrating life skills instruction within a team sports context. Last, future studies within the work force would be beneficial to understand if and how the skills taught in the sports setting being applied to various roles as an employee.

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