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Recent research has diagnosed a reduction in participation within youth sporting events as a contributing factor to significant health and wellness concerns. Among adolescent populations nationwide, there is an alarming rate of decreased youth sport participation at a community and school level (Green et al., 2016). It is estimated that by age 13 nearly 70% of children no longer participate in extracurricular sports (Bell et al., 2019). The purpose of this research was to identify the most influential barriers limiting and facilitators influencing adolescent's youth sport participation. It is more important than ever to formulate effective strategies that can mitigate the ever-growing number of adolescents who are no longer participating in youth sport opportunity (Charlton et al., 2014).

The purpose of this study was to identify ideas and/or methods that keep adolescents participating in sports, to support physical activity participation among an adolescent age group is critical to celebrate positive associations with physical activity experiences. In this research, I referred to these instances as facilitators. Additionally, the research focused on identifying barriers that limit extra-curricular physical activity participation will provide framework and intervention solutions to administrations who support these types of opportunities. Unfortunately, recommendations for intervention cannot be made until these factors are thoroughly explored.

This study was designed to be a mixed methods study. First, the author used two small focus groups of three and four students from two participating junior high schools to help structure a survey. The survey, which also aligned with foundational literature, was distributed to a 9th grade population resulting in 308 survey submissions that were used for data analysis. Focus groups were analyzed using zoom's ability to produce transcription pages. In total, 19

pages of dialogue needed analyzation. The survey was then analyzed in SPSS to produce descriptive and correlative statistics.

Results showed that students surveyed seem to be deemphasizing competition and focusing on factors such as wanting to have fun and use activity as a stress reliever. The general population of students are distancing themselves from varsity athletics, and feel overwhelmed with pressure of competition, whether that is by parents and/or coaches. Time and getting to and from their preferred activities are also limiting in how one can utilize extra-curricular activities.

Recommendations to reassociate and reallocate resources to prioritize events that include leisure, recreation, and fun for potential adolescent sport participation. By doing so, we may see an increase in adolescent participation in movement and exercise. Thus, creating opportunity to directly improve various levels of personal and academic achievements and lifestyle. By emphasizing this, it would also be necessary to include resources to provide transportation options, recreational facility and activity improvements that increase accessibility, and likely limit fees and/or cost that may be associated with participation.

IDENTIFYING FACILITATORS AND BARRIERS LIMITING YOUTH SPORT PARTICIPATION AMONG ADOLESCENTS

by

Paul E. Haas

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Approved by

Dr. Michael Hemphill Committee Chair

DEDICATION

I would like to dedicate this dissertation to all past and present teachers, professors and related education staff who have influenced my education over the course of my life. Without the positive associations, challenges, successes, hard work, rewarding experiences, real life application, and much more I would not be in the position I am today. I hope to carry on your legacies by creating my own lasting impact in the education field.

I would also like to dedicate this dissertation to my wife Vicky, and children Owen and Claire. You three are my motivation and inspiration to succeed. You believe in me; you support me. Vicky, I want nothing more than to make you proud. I also strive to set a good example for Owen and Claire. I could not have done this without the support of my family. Thank you for all your sacrifices.

Lastly, I would like to additionally dedicate this dissertation to my parents. The power and importance of education never came as small talk. Higher education was an expectation. You helped me embrace learning, and you helped me understand its importance. I am truly grateful for the value you instilled in my education.

APPROVAL PAGE

This dissertation written by Paul E. Haas has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair		
	Dr. Michael Hemphill	
Committee Members		
	Dr. Ben Dyson	
	Dr. Justin Harmon	
	Dr. Justin Harmon	

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Date of Acceptance by Committee

March 27, 2023

Date of Final Oral Examination

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CHAPTER I: PROJECT OVERVIEW

As humans, our aspirations to connect with others are unified through social groups; leisure and recreation play key roles in maintaining those connections without such "we suffer from personal and social ills that include depression, poor health and crime" (Glover & Stewart, 2006). Today, research has indicated that participation in physical activity opportunities has decreased among various ages and demographics (Basterfield et al., 2015). More specifically, a dramatic decline in the participation levels of youth within youth sporting events are more noticeable than ever (Green et al., 2016). It is estimated that by age 13 nearly 70% of children no longer participate in extracurricular sports (Bell et al. 2019). Furthermore, there are several examples of consistent evidence that shows a decrease in participation with physical activity as one ages (Larouche et al., 2020). While these references identify a negatively spiraling trend that can lead to lifelong health and wellness concerns, it is important to discover the reasons why these numbers are moving in the wrong direction.

The foundation of this research stems from The Aspen Institute's annual report on trends in youth sports. The Aspen Institute produces an annual report titled *Project Play*, which measures the state of play among youth from national and local communities. Utilizing applicable peer reviewed literature, this study aims to utilize *Project Play's* data, as well as data from the author's local youth sports organizations, to figure out why adolescents are leading less-active lifestyles. It should be noted within the article *Where are the Kids?* acknowledges only one credible peer reviewed article between the years of 2003 and 2013 that focuses on youth in sport in the United States (Messner & Musto, 2014). Additionally, The *Routledge Handbook of Youth Sport* suggests limited accessibility to school-aged youth is a significant barrier in adding to relevant literature (Green et al., 2016).

Background Literature

According to the *Routledge Handbook of Youth Sport* (Green et al., 2016), youth sport is the most widely adult supervised activity outside of preK-12 schooling. That said, youth sports are observed to be "diverse, fragmented, unregulated, and inaccessible" to large sections of the general population (Green et al., 2016). The "chaos" of youth sports is likely because there is not a system and/or nationally based organization that supports the continuity from program to program. This is outlined with the understanding that thousands of programs exist, with only a select few linked by a guiding organization such as Amateur Athletic Union (AAU) basketball and Pop Warner Football to name a few (Green et al., 2016).

Aspen Institute's Project Play, which originated in 2013, states that in a timespan from 2008 to 2013, it was estimated that 2.6 million fewer children ages 6 to 12 were participating in sports in the United States. This is a 4% decrease nationwide over those five years. More recently, in 2022 Project Play reports nearly 28% of children aged 11-14 have simply lost the motivation to participate in sport (Youth Sports Facts, n.d.). The 28% of children identifying as having less motivation to participate in sport is up 1% from the year prior (Youth Sports Facts, n.d.). This also does not include any other significant influence that may affect youth in their decision to participate in youth sport. It is important to reference the history of researching the declining numbers in youth sport participation, because up until 2008, there had been 19 previous years of increasing participation in high school athletics (Theokas, 2009).

In comparison to Europe, Bülbül's (2020) research, highlights that nearly 60% of adolescents aged 15 years old, within various European countries, have decreased physical activity time compared to when they were 11 years of age. Worldwide, it is also estimated that

nearly 80% of adolescents are not meeting the current physical activity guidelines (Hallal et al., 2012).

The current research centers on a community located in central Wisconsin that has seen a major decline of participants in their baseball/softball programs. This community, which is geographically isolated from neighboring communities, however, they are regionally recognized for its success in youth baseball and softball, has seen a 33% decline in participants from 2015 to 2022 according to a board member of Plover Whiting Youth Athletics (PWYA). The number of 5- to 15-year-old participants in 2015 neared 1200, supported by a community with just over 12,000 residents. Nearly 10% of this town's population was participating in the PWYA in 2015. As of April 2022, there are currently only 821 youth participants in girls' and boys' baseball/softball leagues. In discussion, the board members are aware and concerned over the declining number of participants within the program, but have only just begun talks about how to mitigate this trend.

Evaluating the reasons why people, specifically adolescents, are leading a less active lifestyle is essential so we may offer viable solutions to counter how negative effects of low physical activity levels relate to health and overall wellness. The *Routledge Handbook of Youth Sport* (Green et al., 2016) suggests several suspected barriers limiting participation in youth sport. They are as follows: 1.) lack of publicly funded youth sport programs leading to rising costs of participation, 2.) an increase in parental involvement (specifically the focus of competitive success) as well as (helicopter parenting), 3.) inequities of public accessibility (traditionally identifying underserved neighborhoods), 4.) year-round sport specialization, 5.) injuries (possibly due to overuse and repetitive movements over extended periods of time), 6.) lack of quality coaches and/or coaching development programs, and 7.) declining physical

activity rates or interest in alternative options. It is also noteworthy to reference a study in 2014 conducted by (Tremblay et al., 2014) where the United States received below average "grades" compared to 15 countries on physical activity among children and youth. The United States scored a D- overall, including an F for active transportation, D on sedentary behaviors, and C- on organized sport and activity at school.

Unfortunately, not all populations have equal access to programs and services related to leisure and recreational opportunities, regardless of the emphasis placed on its importance (Oncescu & Loewen, 2020), and factors influencing participation in various health enhancing events remain unclear (Charlton et al., 2014). In most cases, those who experience withdrawal from recreation during their youth, typically associate their experiences negatively and must wait until they are adults, if ever, to re-kinder a sport to participate with (Sallis et al., 2015). There are also limited motivational contexts for participation in extracurricular recreation opportunities not only in sport but community events once we reach adolescence (Shen, 2014). Many adolescents are either not prioritizing or are unable to prioritize an active lifestyle and their activity opportunity is taking a back seat to many additional suspected barriers such as digital media outlets, social and family influence, accessibility, and socioeconomic status (Bell et al., 2019; Harrington et al., 2017; Legg et al., 2018; Oncescu & Loewen, 2020; Pot et al., 2016; Wang et al., 2019). It is more important than ever "to formulate effective and timely preventive strategies starting early in life" to reverse the negative trend of adolescent decline in youth extra-curricular activity so this behavior does not transition into adulthood (Charlton et al., 2014).

Community recreation is suggested to serve as a vital resource to one's health and wellness goals throughout their lifetime (Borraccino et al., 2020). From participating in slow pitch softball leagues, to disc golf tournaments, one can take advantage of opportunities offered

within a community to remain active (Sallis et al., 2015); it is critical that community involvement in these settings be established at a young age (Charlton et al., 2014). Additionally, the CDC outlines framework centering health and wellness for school aged children through the WSSC model (WSSC, 2023). The Whole School, Whole Community, Whole Child, also known as WSSC, connects health, academic achievement, and evidential based practice through the roles communities and schools have on children to establish healthy behaviors. A few key components included in the WSSC model emphasize physical education/physical activity, community involvement, and family engagement to support well-rounded healthy behaviors (WSSC, 2023). These components are a multifaceted assembly of key concepts that can influence positive youth sport trends. A focus to identify the benefits of putting the *community* back in community recreation so that more populations can regain access to increasingly more meaningful life skills and habits connects a proactive approach to mitigating negative health trends (Glover & Stewart, 2006).

While it is important to recognize the importance and differentiated meanings of the terms extra-curricular activity, community recreation, and youth sport have, moving forward, the term *youth sport* participation will be categorized as the proceeding phrase to connect the terms.

Overview of Benefits: Engaging in Youth Sport

Many well-documented positive outcomes of sport participation exist beyond physical benefits (Broyles et al., 2016). Such outcomes can influence community and personal growth opportunities that emphasize a holistic and positive impact on one's personal, social and cultural development (Broyles et al., 2016). Among children, positive associations with increased physical activity can also be identified as improving better self-esteem, discipline, and academic performance, which may lead to learning about goal setting, teamwork, and less participation in

risky behavior (Bell et al., 2019). Bremer and colleagues, (2020) adds increased physical activity among youth has shown evidence in improving academic performance, positively impacting social-emotional behavior, and improving team building and cooperative settings. Further examples include physical activity correlating with engaging in other general lifetime healthy habits (Borraccino et al., 2020). For example, those who practice consistent cardiovascular associated exercises are less likely to pick up smoking (Angraal et al., 2019). Bell et al. (2019) states that children with increased physical activity levels have immediate improvement to overall health, as well as creating and sustaining ideal behaviors associated with one's health that are likely to transition effectively to adulthood. Langford et al. (2015) supports other aspects of increased physical activity, specifically among youth, that can help improve areas emphasized in a K-12 school setting that can lead to a lifetime of not only health but academic success.

Increase in PA Improves Academic Performance

It is generally understood that increasing physical activity benefits physical fitness leading to improved physical health (McPherson et al., 2018). However, in targeting adolescent populations to increase physical activity, it is ideal to target other varying health components as well as social and academic components that lead to positive lifestyle changes (Langford et al., 2015). As briefly stated above, increased physical activity levels can positively influence a child's academic performance. According to Resaland et al. (2016), physical activity's relationships with academic performance is documented due to the improved cognitive functioning such as attention, concentration and working memory during and after performance. According to McPherson et al. (2018) several quasi-experimental studies over the last decade focused on increased physical activity throughout a school day found that these enriched

physical activity times maintained high academic performance even with the allocation of reduced seated classroom work. In short, increasing physical activity throughout one's day to improve overall health status, does not impede other traditionally recognized "core" subjects. A study by Ishihara (et al., 2020) also concluded that specific sport participation involving complex motor skills is positively related to future academic performance. Again, to support individual physical health benefits through participation in these physical activity events, there is a positive correlation of the child's involvement in their selected sport to the children's overall academic status. It was also noted in Ishihara's (2020) study that "Quitting sports activities were negatively associated with academic performance via a reversal in cardiorespiratory fitness gains."

Increase in PA Supports Socialization and Social-Emotional Health

In addition to academic success, participation in youth sport also offers a unique opportunity to collaborate and engage in social settings with peers and others (Hinyard et al., 2018). McEwan et al. (2020) suggests many individuals prefer to engage in physical activity opportunities in a group and/or partner settings. McEwan also establishes that building positive relationships, developing problem solving abilities, and establishing communication skills can all be directly associated and influenced by one's participation in a team like setting. Team is used vaguely in this sense, as the term team can be referenced by collaboration among a group of similar athletes, a one-on-one coaching relationship, interaction with umpires, officials and/or referees, and involvement with fans or spectators (Hinyard et al., 2018). All associations with these various demographics play an intricate role in positively reinforcing appropriate public behavior and lifetime sustainability in these choice opportunities. Realistically, these "frameworks focused on teamwork in other contexts (e.g., sport, business, health care) suggest that the concept of "working together" is comprised of several reciprocal behaviors between

individuals that take place during 'action' and 'transition' phases" (McEwan et al., 2020) that carry over into lifetime skills. Moreover, participation in youth sport provides sensible and applicable life skills that carry more than just physical fitness benefits.

Another area to receive attention driven by increased physical activity levels is in one's social emotional health. Taylor et al. (2017) states that children and adults who participate in increased levels of physical activity improve one's social emotional learning. Whereby, the increased awareness of this area supports the acquisition and application of "knowledge, skills, and attitudes that enhance personal development, social relationships, ethical behavior, and effective, productive work" (Taylor et al., 2017). These skills which support a child's individualized development as a whole-being are prioritized by teachers so they connect the social and emotional learning skills needed to be college and career ready (Worrell et al., 2020). The correlation between social emotional learning and participation in youth sport opportunities clearly connects by supporting growth for ideal adulthood characteristics. Furthermore, it is supported "Out-of-school settings, such as after-school programs and community organizations, are natural sites for social emotional learning interventions. Because these programs and organizations do not have schools' curricular demands and often have broader developmental goals and missions, they can focus on social emotional learning skills and outcomes to a greater extent than schools can" (Hurd & Deutsch, 2017).

Increase in PA Supports Less Risky Behavior

Positive youth development (PYD) is a concept that is widely celebrated among many populations. The framework of PYD intends to look past a problem-orientated focus and take a more proactive approach to reduce risky behavior (Taylor et al., 2017). These proactive approaches can be identified and supported within networks of family, peers, school, and

community environments (Holt et al., 2017). Successful interventions from PYD produce successful completion of youth's individualized developmental goals and the development of life skills (Holt et al., 2017; Taylor et al., 2017). Holt and colleagues (2017) state a need for identifying approaches, such as sport-based youth development (SPBY) that consider the contextual features of youth sport as they are conceptually presented with PYD framework. However, it is clear that research connecting PYB and SPBY is currently limited (Holt et al., 2017). Both concepts focus on building children's strengths, establishing supportive contexts and provides opportunity within youth-contexts of personal and social interactions (Holt et al., 2017; Taylor et al., 2017). Additionally, physical activity intervention, and therefore community recreation participation can play a lead role in limiting children's participation in "risky behavior", of such that may negatively impact one's community (Taylor et al., 2017).

There are direct associations linked to the benefits of physical activity and other major social, developmental, academic and behavioral aspects of life (Morton et al., 2016). Though there are multiple ways to attempt to address including physical activity as a viable intervention solution aimed at supporting these needs, youth sport is deemed as a top choice due to the nature of voluntary participation and the variety of its task offerings (Hurd & Deutsch, 2017).

Seemingly, participation in youth sport should be available to an all-served philosophy, however, it has been noted the participation levels are decreasing among children in these events (Green et al., 2016). Further discussion is needed to find out why.

Introducing Barriers that Limit Youth Sport Opportunity

Individuals who do not obtain prerequisite skill and understanding of specialized activity are less likely to engage in the specialized activity as an adult (Gallahue et al., 2020). This is also emphasized by Ruiz-Ariza et al., (2017) as adolescence being a key stage in compiling skills that

are positively associated with recreational experiences so they may transfer to adulthood, thus creating sustainable healthy lifestyles. It is important to target adolescents for intervention as many developmental opportunities will theoretically create a better recognition of importance that supports one's desire for success in these types of activity opportunities (Ruiz-Ariza et al., 2017).

Speculation to the decline of participation in youth sport involves early sport specialization leading to burn out (Bell et al., 2019); others speculate accessibility and safety (Oncescu & Loewen, 2020); while some speculate parental behavior and cost (Pot et al., 2016). Regardless of speculation, advancing the literature foundation of identifying barriers that limit children participating in community sponsored recreational opportunity is in dire need (Charlton et al., 2014).

It should be noted even less research offers potential solutions to increase numbers participating in youth sport opportunities. Identifying multiple barriers and offering intervention solutions that can promote children participating in recreational and sporting events needs to be addressed to promote positive correlations between increases of physical activity and the developmental growth opportunities listed above. An overview of suggested barriers previously researched is necessary to provide context and purpose for continued advocacy for increased physical activity opportunity.

Sport specialization is highlighted as a potential barrier that may influence a decline in youth sport in a variety of ways. This model emphasizes competition at the highest level (Legg et al., 2018) which can lead to burn-out. This is also supported by Bell et al. (2019) who discuss how intensive training linked to sport specialization partially attributes to burnout at an early age. Bell et al. (2019) continues to point out that specialization is problematic for children who

mature later in adolescence and limits opportunity for children to explore other sport experiences due to late entry. While school sporting events are an outlet to address in this research, it is also limited. The idea of school sponsored sports is exclusive (Bennett et al., 2020). In some cases, we allow 13 to 20 kids on a team associated with school sport. What happens when there are 50 who try-out, and to those cut from the team? As highlighted above, if a child is unable to make said team, having only specialized in one sport their entire life, limited additional opportunities to stay active in a highly competitive level present themselves (Bell et al., 2019). This leads to most cases within this population needing to wait until they're adults, if ever, to re-kinder a sporting event to participate with (Sallis et al., 2015).

Another barrier associated with limited youth sport engagement is socio-economic status. Families with limited levels of income face unique challenges on how to prioritize their monetary situations. As these communities struggle with overall health status likely due the lower levels of income, families experience these barriers related to "cost, facility quality, program offerings and capacity, and availability of sports and recreation facilities" (Harrington et al., 2017). Strong correlation is linked between socioeconomic status and severe health problems (Hobza et al., 2017; Krist et al., 2017), resulting in the suspicion that lower income families struggle to seek extra physical activity opportunities.

Parental influence is another potential barrier identified within the literature. This can be viewed through two lenses. The first approaches interests, ideologies, and behaviors and the second identifies responsibility. Within the first lens, Pot et al. (2016) supports that most of an individual's social capital is acquired through an inheritance which is extensively dependent on family upbringing. In Pot et al.'s (2016) findings it is stated that the parents are not only the ones who introduce "children to the social context of the sporting club but also guide the formation of

sports-related values and behavior." Consequently, parents who participate in non-desirable behaviors associated with poor health (i.e., screen time and television viewership among others) can, and likely will, be replicated by their children (Krist et al., 2017). Identifying the second lens, according to Harrington (et al., 2017), more than 60% of parents interviewed in their survey identifying barriers of accessing sports and recreation facilities admitted to prioritizing "top-of-mind" instances over utilizing recreational opportunity. Examples include using busy schedules and competing priorities of self-interest which limited participation in sport opportunity for their children.

As accessibility of digital media outlets increases (Wang et al., 2019), we are seeing more people become increasingly obsessed with their device and digital media technology that is overtaking many other aspects of their lives (De-Sola Gutiérrez et al., 2016). Wang et al. (2019) concludes obesity, reduced physical activity, lower academic achievement, and multiple other health risk behaviors have a negative correlation to the accessibility of the plethora of digital media outlets that fill our lives. De-Sola Gutiérrez et al. (2016) concludes that overuse of digital media outlets is causing an increase to problems that are affecting most daily life aspects. De-Sola Gutiérrez et al. (2016) goes on to state there are persistent psychological and psychiatric problems where there is an inverse relationship associated with mental health, healthy habits and the hypothesized cell-phone addiction. These can negatively correlate with self-esteem, self-concept, and neuroticism. The addiction state of overuse of cellphones is limiting interest levels and participation in physical activity among young people, and therefore can be identified as a viable barrier that is related to reduced youth sport participation.

In March of 2020, the world as we knew it was drastically impacted by the effects of COVID-19. As schools closed, so did the recreational facilities many rely on for their physical

activity opportunity. Early on in the worldwide pandemic a study by Alves et al. (2021) surveyed children about associated stress levels compared to their BMI and physical activity participation. The study didn't demonstrate a difference between reduced or increased physical activity participation among the differentiated BMIs, like the authors had originally hoped, which was due to all populations having a reduction in overall activity time. However, the study did differentiate associated stress and anxiety levels between high and low BMI levels. The results of the study indicated that children with higher BMIs had stress levels more than 5 standard deviations higher than their peers with lower BMI levels. In another study by Campbell et al. (2021), surveying high school students in rural Georgia about their understanding of the negative effects of COVID-19 to general life, indicated that most adolescents surveyed out of 761 participants had a general understanding of the pandemic. Therefore, this justified other information discovered that nearly 82% of those surveyed admitted to increased screen time, and nearly 40% of participants indicated lower physical activity time and worsened eating habits. In our current state of the world, it is irresponsible to ignore the effects of COVID-19 and its relationship to physical activity opportunities.

Introducing the Importance of Facilitators that Promote Youth Sport Opportunity

Through the examples within this document, the literature highlighted demonstrates the importance of targeting physical activity opportunities through sport. The benefits are insurmountable for promoting healthy lifestyles, though, as also discussed, there are many factors that limit individuals from accomplishing increased physical activity opportunity, specifically at younger ages. The barriers identified above are resourced to direct change. It is increasingly important that while we examine these barriers, we also need to discover facilitators that influence those who exceed expectations when it comes to youth sport participation.

The emphasis of youth sport is important to the individual because it provides more than skill, competence, and healthy movement. The individual who participates in youth sport, whether competitively or recreationally, as a young person has more wherewithal of opportunity for physical activity as an adult (Cohen & Ballouli, 2018). Thus, leading to the likelihood of choosing something within the community to participate with as a choice for healthy activity. Positive experiences in youth sporting events as a child can impact the likelihood of getting their future children involved, creating a sustainable impact among recreation events. This can be looked at as building community structure (Pollack Porter et al., 2019). Not only are we encouraging participants of all ages to embrace these opportunities, but it leads to supervised events where the children can build a network of peers and possible professional relationships that lead to healthy and happy lifestyles (Pollack Porter et al., 2019).

As supported earlier in this paper, community engagement specifically in physical activity environments, support socialization growth among adolescents (McEwan et al., 2020). According to Howie et al.'s (2020) study *Promoting Physical Activity Through Youth Sports Programs: It's Social*, positive socialization also influences participation. Social agents such as family, friends and teammates, among others, are witnessed as motivational influences who interact with various climates that align goal orientations (Howie et al., 2020). Howie et al. (2020) states "friends were consistently reported as a predominant reason given by children and adolescents for participating in sports." Thus concluding, it is increasingly reliant to network, develop meaningful relationships and lean on a strong support system of peers to positively influence sport motivation and participation (Howie et al., 2020). Though brief, it is equally important to offer viable community structured recommendations and solutions to reengage a positively trending effort of increasing physical activity for our youth.

Purpose Statement and Project Aims

The literature reviewed supports the importance of what increased physical activity does to one's personal growth and development. Regardless of benefit, less children are finding extra opportunities to stay active each year (Oncescu & Loewen, 2020). The data available on this topic shows a decline in participation numbers. This has been demonstrated through national data, as well as the declining numbers of what was once a prominent youth sports baseball/softball program in central Wisconsin. Limited data is available as to why we are seeing a decline in youth participation in community recreation events. Therefore, supporting the central hypothesis in that the data collected will identify significant facilitators and barriers that are influencing adolescent participation in youth sport opportunity. Further dissemination of this data will support appropriate intervention solutions for communities who experience similar negative participation rates. To accomplish this within the community, we must identify the factors that are beneficial and hindering participation in these events. Therefore, intervention solutions can look past a problem-orientated focus and take proactive approaches to reduce behavior that is recognized as non-beneficial to youth's overall wellness (Taylor et al., 2017).

- AIM 1: identify facilitators to adolescents' participation in youth sport
- AIM 2: identify barriers to adolescents' participation in youth sport

AIM 1: identify facilitators to adolescents' participation in youth sport

An increase in physical activity plays a key role in achieving positive health and wellness. Unfortunately, many adolescents still choose to remain sedentary for a variety of reasons. It is a trend we are seeing trickle down through our youth more with each passing year. As briefly mentioned above, there is a *critical need* to identify facilitators to serve as catalysts of activity participation among adolescents. The *objective* of this aim is to identify experiences and

behaviors that adolescents use as motivators to stay involved in youth sport opportunities. By identifying these motivators through a series of surveys and focus groups, supports the *rationale* that future intervention cannot be achieved without identifying this critical area first. The *expectation* is that there will be several key facilitators identified that can help support others who struggle in finding reasons to commit to physical activity outside of a forced environment.

AIM 2: identify barriers to adolescents' participation in youth sport

It is exceedingly important to identify instances that seemingly "work" for young people who willingly and enjoyably participate in youth sport opportunities. Likewise, there is a *critical need* to identify the factors that are restricting adolescents from participating in such events. The *objective* of this aim is to identify the top three barriers within the identified community that are preventing adolescents from participating in any youth sporting events. The *rationale* supports the understanding that if we cannot identify the reasons why children are not utilizing this important lifestyle behavior of youth sport participation, we cannot appropriately provide intervention to such barriers. For example, a strong predictor of such barriers indicates that socioeconomic status may influence the decline in participation rates due to location, funding, and other accessibility concerns. However, without first identifying whether socioeconomic status is a significant barrier, stakeholders may allocate funding when funding could be utilized elsewhere. The *expectation* is that the findings will provide key areas as deemed most important to limiting adolescents' involvement in youth sport activity. Thus, fueling a well-resourced intervention solution that increases participation in activity among this population.

Methods

The study was designed to be a mixed methods project. The foundation of the literature helped mold the survey that was eventually distributed to ninth grade students. It should be noted

that a qualitative analysis was used to support and strengthen survey findings, as well as help finalize the survey before distribution. The small group discussions provided basic understanding of physical literacy competency, perspective of facilitators and barriers towards participation in extracurricular physical activities, and suggestions for improvement among physical activity opportunities. The survey data provided descriptive data, as well as correlation data relevant to what is creating sustainable physical activity opportunities, and what is limiting them.

Participants

Two public junior high schools were selected for data collection. These schools service grade levels of seventh through ninth grade. Ninth grade students have been deemed most relative for this type of data collection (representing a secondary population) due to ninth grading lying directly in the middle of the secondary population for students enrolled in K-12 public education (Ruiz-Ariza et al., 2017). Middle school typically starts in sixth grade, whereas high school ends in twelfth. It is also important to identify that these students are old enough to make informed decisions about their daily behaviors (i.e., food choices, homework dedication, limited but present exposure to workforce, participation in extracurricular events, etc.), but also require support from parents/guardians and/or other community/familial supports to gain transportation, fees, equipment, etc. for participation success. This provides a centralized population that may still carry characteristics and factors from a younger population, while also transitioning into more responsible behavior noticed in upper grade levels of high school.

The school district supports two main towns whose population add up to nearly 40,000 residents. It should also be noted, that between the 2010 and 2020 census polls the population of this community grew 345 residents (*U.S. Census Bureau QuickFacts*, n.d.). This community is however, isolated in geographic location, with the closest neighboring town and high school

being located over a half hour away. Community centers and schools (identified in the study) are accessible through public transportation, accessible bike paths, and close proximity to centralized housing communities. However, the city and schools have limited resources that extend beyond the direct city limits. To include children in sport who live in more rural areas, an isolated study involving the city's direct housing demographics would help specifically focus the specific need of providing these resources.

Paul Joseph Jr High School serves the northern population of the geographic location with an enrollment of 677 students. Bethany Fiona Jr High School serves the southern population of the geographic location that enrolls 828 students. The school district that will participate in data collection has an open enrollment system, meaning a family geographically located in the southern half of the district may enroll their children at Paul Joseph Jr. High. Services provided are similar, but bussing is not offered to families who participate in open enrollment. It is observed that the northern population is identified as a part of town that does not have much recent housing nor community development. Whereas the southern population of this geographic area is observed to have newly developed housing communities and is estimated to hold more upper-middle class citizens.

Among the students who submitted completed surveys from both junior high schools, 47% of respondents were female, 46% were male, and 7% were non-binary/preferred not to say. 79% of whom were White/Caucasian, 7% were Asian/Hmong, 3% were Black/African American, 5% were Hispanic/Latino, 1.5% were Native American and 3.5% answered Other to make up the gender and racial demographic.

Table 1. Demographic Data

		n=308
Male	46%	142
Female	47%	146
Non-Binary/Preferred Not to Say	7%	20
Asian/Hmong	7%	22
Black/African American	3%	10
Hispanic/Latino	5%	15
Native American	1.5%	5
Other	3.5%	11
White/Caucasian	79%	245

Procedures

Data collection was administered in two ways. The author secured Internal Review Board (IRB) approval to facilitate focus group questions and provide surveys to minors. Parental permission is required to allow minors to participate in a study such as this one. Before the school year started, contact was made with district administration as well as six physical education teachers to include in their syllabi a parental opt out clause of participation for research. Instructions were sent home to parents that their child would participate in research connected to youth sport participation. It was stated students were to be kept anonymous. Should a parent choose not to submit the opt out clause to the school by the designated due date (one month after the first day of class), the child was considered for research participation.

Phase 1: Focus group participation recruitment began immediately after the due date of parental assent form return. Paul Joseph Jr. High School was selected for participation first, and a cooperating physical education teacher selected three students to participate in small group focus discussion. Bethany Fiona Jr. High School requested an additional week for parents to have an opportunity to return opt out forms, and a small group focus discussion took place one week after Paul Joseph Jr. High's participation. A cooperating teacher selected 4 students to participate from Bethany Fiona Jr High School. All students selected did not return parental assent form, therefore there was no opt out associated with these participants. Guided Questions for focus groups were administered as follows:

- What key benefits does an increase into physical activity participation have on your overall health?
- Describe your physical activity participation. How much time do you dedicate to physical activity outside of school hours?
- What influences the amount of physical activity you participate in?
 - Start with suggestions that increase participation.
 - o Is there anything that stands out to limit your participation?
- If you could offer suggestions to your coaches, administrators, or facility directors to enhance your preferred activity area, what would you suggest?

Discussions were held in a private meeting room located next to each gym. Conversations were recorded using Zoom software and stored in private cloud storage to reserve the confidentially of the participants.

Phase 2: Surveys were developed using the themes outlined from the literature above.

The literature offers perspectives of published authors from all over the world. Surveys were then solidified after analysis of small group discussion conversations highlighted a few themes that were not mentioned in previously discussed literature. It is important to include these themes from target participants to help with the formulation of the survey, as there is little to no research available identifying the target population's perspective. The conversations from small group discussions did confirm much of what the literature previously identified. However, there were

responses added to the final questions of the survey that were highlighted in discussion conversation.

The survey (Appendix A) was created using the Qualtrics software program and administered to 17 ninth grade classes between the two public junior high schools. The Qualtrics link was shared with the physical education teachers who were willing to collaborate with the project. At the start of class during the designated days of the survey administration, students were asked to bring their Chromebooks to class. Chromebook computers are provided to each ninth-grade student for their academic use by the school district. The author introduced the project and why the students were being asked to complete a survey. Survey instructions were given, specifically regarding questions nine and ten, about how to answer the ranking questions appropriately. Once the introduction was complete, the collaborating physical education teacher made the link available through the student's school email. Students accessed the link and completed the survey. Once submitted, students were then allowed to start their warmup activities associated with their physical education class for that day. In efforts to reduce the availability of the survey so students did not have access to completing the survey more than once, the survey was closed after the distribution to the 17 classes, and students who were absent during the distribution of the survey were not given an opportunity to complete it.

Analysis

The small group discussions averaged 20 minutes between the junior high schools and provided thoughtful discourse. Participants were eager to share personal experiences related to the content overview. Zoom features include an automatic transcription option which organizes the individualized conversation from each participant into a dialogue sheet. The author watched zoom recordings with printed copies of transcriptions, noted students' dialogue, and made

adjustments to include exactly what was stated as minor errors were present throughout the computer-generated transcriptions. The purpose of the small group discussions was to add any additional information to the survey that would be administered to all 9th grade students. Additionally, direct quotes were used to help justify results of the survey. The small group from Paul Joseph Junior High School contributed to 10 pages of dialogue. The small group from Bethany Fiona Junior High School added an additional 12 pages of dialogue. Totaling 22 pages of transcripts.

During phase 2 of data collection, completed surveys were stored in Qualtrics. Qualtrics provided a general overview of data through total number of submissions, submission responses, general means to each question, and general standard deviations. To answer the initial AIMs of this research, a general descriptive statistical analysis was used to formulate a weighted mean which justified the most significant overall response related to facilitators and barriers. Asking students to rank questions 9 and 10 from the survey spreads the responses out across all possible places within the question response total. Facilitators, having seven total responses, were organized on a seven-point scale. Any response that recorded a '1', or deemed "most important" by the participant, earned 7 points to be added to its overall score. A response recorded as a '2' received 6 points, a '3' earned 5 points, and so on. To analyze the overall weighted mean, for example of "positive association with coach" (the first choice on the list of responses for question 9), the author took all the times it received a '1' ranking, multiplied this by 7, and then added it to the additional corresponding numerical values described above. Once the score was added entirely, multiplying all the points awarded to the responses 1-7, the now large number was divided by the total number of submissions, providing a weighted value to the response. The score that received the highest mean was then deemed the most important factor overall for the question. This repeated in the same fashion for question 10 related to barriers.

Further analysis was needed to correlate demographic information requested from the survey with the questions related to facilitators and barriers. Qualtrics data was uploaded to excel, where numerical values were coded with responses so SPSS could run chi-square statistics. The purpose of this was to measure the frequencies of the outcomes with the categorical variables to determine statistical associations of any potential differentiations among the demographic information provided. Multiple tests were run to determine associations between genders, race, and GPA related to the top and bottom choices in questions 9 and 10. Note that race was combined into two cross-categories, as the demographic information was heavily lopsided. With 79% of respondents representing white ethnicity, the remaining races were categorized into one group labeled 'other'. This was also done with anyone who did not identify as male or female, categorizing a third option as "other" due to the limited number of respondents.

Lastly, a descriptive analysis was run with question 6 of the survey (identifying how many community and/or school sponsored activity events one currently participates in). The analysis looked at two populations. The first population analyzed was to determine the strongest facilitator identified with respondents who entered 3-4 and 5+ as an answer(s) for question 6. The second population analyzed was to determine the most important barrier for those who entered 0 in question 6. The purpose here was to see what the most influential facilitator for students who are theoretically exceeding the standard in their participation levels. As well as to determine the most important barrier for those who do not participate in these events at all. The

weighted means analysis was used to determine the most important factor based on the categories described.

Results

Focus Group Discussions

Following the analysis of the discussions, there were common themes represented throughout the conversation of both groups interviewed. Among the three students interviewed at Paul Joseph Jr. High School, four main categories surfaced as potential influencers impacting their age group in terms of participation in youth sport. These four themes were identified as 1) mentor influence, 2) stress relief, 3) time commitments, and 4) coach influence. Among the four identified themes, the author added mentor influence and stress relief as survey responses for question 9. These concepts were not initially included in the survey. Time commitments and coaching were previously identified as potential facilitators and barriers as mentioned throughout the literature review. Therefore, these two options were already included within the organization of questions 9 and 10.

The idea of involving more mentorship opportunities with older athletes was specifically emphasized by student 1 (Sandy) stating "When I was in 7th and 8th grade, my soccer team wasn't very good, and we did not have a lot of coaching that went into it. But I think if maybe some of the varsity players from the high school came down and were able to bring us up to that level, that we would want to be more like them." Student 3 (Austin) confirmed this idea, mentioning a former athlete from their high school who recently went to the NFL, is something relatable to him and that he would appreciate spending time with superior varsity athletes.

Student 2 (Lisa) was the initial student who identified stress relief as a major part of why she chooses to stay active. When initially prompted to speak about perceived benefits of staying

physically active, Lisa states "I would say it helps to relieve stress and get my mind off of school. Or, especially after school like if I had a bad day or like a lot of tests. For me, I like to just go and like hang out with people and friends in like sports and stuff." Austin confirms this idea by stating "it definitely takes your mind off a lot of things. If I am just on the football field, or playing catch, or even just wrestling around, it just relaxes you."

Among the four students interviewed from Bethany Fiona Jr. High School, the conversation that surrounded youth sport kept circling back to how they perceive their activity participation in physical education class. These students needed to be reminded to try and relate their thoughts to how they perceive youth sport outside of school hours.

The initial conversation focused on the challenge of being active, not only in a physical sense but in a social sense. Student 1 (Steve) references how social media can influence choices you make. Steve suggests "when you see someone on social media living their best life, you feel like your life isn't going to match up, and you get very low self-esteem from this." Student 2 (Claire) also confirms this theory by stating "It's a skinny supermodel or whatever, and I guess it like tanks peoples self-esteem because they can't live up to that, and it just makes you feel like garbage. Then they don't want to do anything because it's just not going to help. And I think a lot of people just feel like that."

It was also suggested that there is a significant amount of pressure to participating in sports. The group circled this theme back to over competition, coaching and bullying. Suggesting it then turns into something you do not enjoy anymore and that weighs on their decision to participate in any activity. The students were prompted to speak on behalf of themselves and potentially as to why their friends may not like sports anymore. Student 4 (Greg) states "I think they" (referring to his friends) "would answer that the coaches weren't nice anymore. Like the

coaches just yell a lot. And then the teammates weren't like good teammates and nice to them anymore either." Greg also speaks to the importance of competition and "getting better" referencing "People are counting on me to get better. Do you know what kind of pressure that puts on me? Because, like all team sports, everyone has to chip in. And it's doing the work you need to do to better yourself, and it just taxes you." Steve also confirms that this could be related to what he has noticed as a drop in his friends liking these activities. Specifically speaking towards bullying, Steve states "It doesn't help as much" (referencing a coach speaking to teammates who may be mistreating someone else) "to just talk to them, saying this is wrong.

Don't do it again. Because if the bully does it in secret, they're going to know who told on them.

And it is just going to make things worse." The group agreed that this can lead to not wanting to be involved, and there doesn't seem to be a fair way to handle these situations.

These themes, though important to reference to strengthen the support for the initial inclusion of these types of responses in the survey, did not, however, need to be added in the survey, as they were already present outlined in the literature review.

Survey Results

In total, 406 students were present on survey distribution days. Thirteen students chose not to take the survey and answered "no" for question one. Three students left question one blank. Seven students had incomplete demographic information and therefore their submissions were not counted in the final tally. Additionally, 73 students had incomplete responses to the final two questions asking them to rank their facilitators and/or barriers. Marking the total number of participants utilized within the statistical analysis at 308.

Before analyzing the data of the 308 completed surveys, the author attempted to find themes connecting the students who chose not to complete the last two questions of the survey.

Among the 73 students who failed to answer questions nine and ten, all had mostly completed demographic information. 45 identified as male, compared to 21 females, the remaining seven either left gender blank or chose the other two options. Notably, 57 of the 73 answered question six (related to their current participation in school or community-based activity) at 0, or 1-2. This is noteworthy, as it is on the bottom half of this question's spectrum in terms of activity participation outside of school. This possibly suggests this group of students did not value the importance nor emphasis of this research due to their already limited involvement in such events not being prioritized. These 73 responses are noted here but were not used in the final descriptive and correlation data below.

Using the weighted scale identified in the analysis, it was determined the most important facilitator that influences participation towards extra-curricular activity is *Friends participate in similar activity interests* with a weighted mean of 4.46 out of 7. Number two was *Fun and/or stress relievers* with its weighted mean equaling 4.36. On the opposite end, the least influential facilitator was identified as *having a positive association with varsity athletes (mentoring and/or success)* with a weighted mean of 3.3 and following this was *competition* had a weighted mean of 3.78. Identifying the most significant barriers using this scale came out to be *Time (work and/or homework and/or watching siblings and/or other responsibilities* as the most important barrier with a weighted mean of 6.59 out of 10. The second highest weighted mean was *ability to get to and from facility (no ride)* with a weighted mean of 6.31. The least important barrier was identified as *COVID* with a weighted mean of 1.85, followed by *parental influence: I align my priorities similar to my parent's interests which does not typically involve physical activity* with a weighted mean of 2.73.

Figure 1. Facilitator Graph

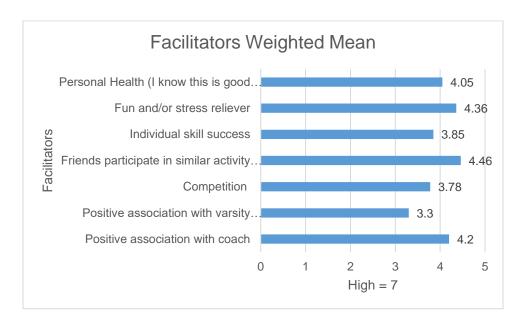
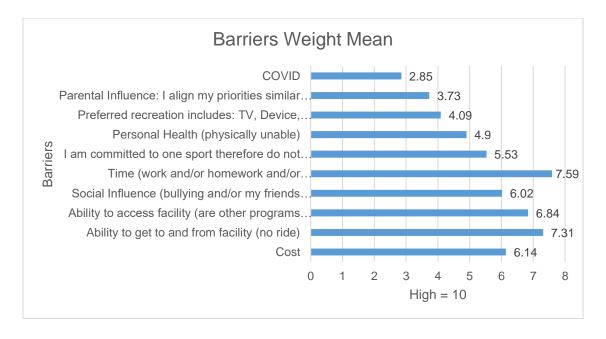


Figure 2. Barrier Graph



Additional analysis was measured to cross tabulate whether there were any demographic differences (of gender, race, GPA) related to the top and bottom choices of facilitators and barriers. The tables (Appendix B) identify the percentages of the student's choices analyzed for each of the demographic information. A chi-square test was used to measure whether there was a

statistical significance between any of these factors. All but one chi-square test produced insignificant values related to the categories measured.

Chi-square test (Appendix C) between gender and top facilitator of *Friends participate in similar activity interests* produced a p-value of .672. The p-value between race and *Friends participate in similar activity interests* was .793. Lastly, comparing GPA categories to how those respondents answered *Friends participate in similar activity interests* determined a p-value of .477. The second overall facilitator *Fun and/or stress reliever* produced a p-value of .160 between genders, a p-value of .430 between race, and .715 between GPAs. In looking at the least important facilitators determined by the weighted mean above, the p-value between gender and *positive association with varsity athletes (mentoring and/or success)* was assessed at .694. The p-value between race and this facilitator was .953, and GPA was .161. The second least influential facilitator *competition* was measured as having a p-value of .266 between genders, .700 between race, and .704 between GPA. Thus, determining there is no direct association that categorically there are differences between choices related to facilitators, hence all p-values are above .05.

In determining the p-values of the top barriers *time* was measured at .060 between sexes, .477 among race and .065 between GPA. The second most important barrier of the *student's* ability to get to and from facility (no ride) had a p-value of .094 between sexes, .669 between race, and .411 between GPA. The least important barrier identified as *COVID* had a p-value of .625 between genders, .386 between race, .151 between GPA. Lastly, the second least important barrier identified as *parental influence* demonstrated a p-value of .499 between gender, .604 between race, and .028 between GPA. The .028 value does suggest that there is a significant relationship between GPA and the rankings of parental influence on physical activity participation.

Lastly, a descriptive analysis (Appendix D) for determining the most important facilitator for students who participate in 3 or more community or school-based activity events (n=60) identified that *individual skill success*, with a weighted mean of 4.55, as what motivates this population the most in staying active. It should also be noted that *competition* and *positive* association with a coach had weighted means slightly behind skill success, measuring each at 4.43. The least important facilitators When analyzing the population who entered 0 for how many community and school based activity events they participate in (n=81), the most influential barrier(s) aligned with the what the overall survey said as whole, listing time (weighted mean 7.31), transportation (weighted mean 6.99), and accessibility (weighted mean 6.7) as their top choices.

Discussion

The purpose of this research was to identify the most influential barriers limiting and facilitators influencing adolescent's youth sport participation. The WSSC model, referenced in the background literature section of this study, highlights the importance of connecting schools and communities to improve many cognitive, physical, and social characteristics of children (WSSC, 2023). Youth sport serves the same children, often in the same settings under public health and educational environments (WSSC, 2023). Utilizing school settings to understand these main barriers and facilitators within community and school settings will provide framework to mitigate the declining participation issue surrounding youth sport.

In looking at the data to directly answer these questions, the most identified barriers among this population are *time* and *accessibility* (*specifically lack of transportation*). Regardless of the demographic information, these barriers are suggested as the strongest limitation on how this adolescent population stays active.

The theme of *time* identified as a significant barrier is further strengthened throughout both junior high school's small group discussion. Students who participated in the discussions suggest there is a strong emphasis on homework, and various other responsibilities that one participates with such as work, that take away time from their personal interests. Austin from Paul Joseph Jr. High School stated that "*if you have a bunch of homework you probably aren't going to join another thing. Even if it is something like drawing, or doing things on your own time, they aren't going to give that up and join another." Suggesting the balance between a variety of interests can be complex and difficult to prioritize activity. A direct alignment between discussion responses and the results of the survey data demonstrate how <i>time* is perceived among this population. It was also stated by Sandy that "Time is something that really limits me. I play soccer in a different city, because its my state team, but I go to school here in town, and live in between. So travel time limits how much I can do." This statement circles back to identifying how students who live in rural areas and need extra support to have this type of opportunity (Tremblay et al., 2014).

The theme of *transportation* identified as another barrier is supported by both survey (ranking second most important) and through discussion. A quote from the small group discussion with Paul Joseph Junior High School, student 3 (Austin) suggests when speaking about why their friends may not be participating in these events "*Having transportation is a great thing. When you turn 16, you just load up and can get going. I can't bike 25 miles and then go do football practice.*" Being that the research focuses on a population who is not driving yet, emphasizes the importance of having viable options such as transportation to support these specific needs (Ruiz-Ariza et al., 2017).

Competition was thoroughly discussed and noted in the data, and the emphasis on competition is a complex concept. As the data was cross-referenced targeting the 60 individuals who were considered highly active (participating in 3 or more activity events), support that competition, positive association with coach, and skill success were motivation to stay active. That said, the data here only refers to 19% of the surveyed students. While these categories were referenced as the upmost important for this particular 19% of students, the remaining 81% valued these specific areas so low, that these topics dropped to the bottom of the ranked list overall. Aligning with Sallis et al.'s, (2015) research, interpretation from the results suggests that the emphasis on recreation needs to be prioritized to meet the needs of the general population to meet more realistic demands of adulthood activity. This section is also supported with the ideas portrayed in Legg et. al., (2018), Bell et. al., (2019), and Bennet et al.'s, (2020) research stating the concerns of over competition and sport specialization are directly leading to burnout. 81% of surveyed students, simply are not emphasizing individual skill success and competition which is commonly what majority of school sport participation is at the junior high level (Bennett et al., 2020).

When identifying the most important facilitators, *competition* and *positive association* with varsity athletics directly aligns at an opposite spectrum of the importance received by participating with friends and using activity as fun or stress relief. Competition and varsity athletics do play an overbearingly stressful role in what is not a sustainable lifestyle activity event (Bell et al., 2019). Bell references the most commonly cited reason for not continuing in a sport is simply stated as "not fun anymore" (Bell et al., 2019). Many high school students do not go on to play college sports, and even less, as a professional (Powell, 2015). The data speaks to a much larger population than the minimal number of athletes who are emphasizing their

participation in varsity sports. If it is more motivating to stay active by being with friends and in a less stressful environment, where additional support for this theory is emphasized by Howie et al., (2020) and McEwan et al., (2020), then theoretically, the importance that is emphasized on the 15 players who make the varsity basketball team, needs to be redirected to the remaining students who are not on said team. This is comparable to all sports that make varsity cuts as it is limiting the resources allocated to the minimal population participating in these events.

When asked how administrators can support the students participating in this research,

Steve from Bethany Fiona Junior High School states "It is a good idea to ask kids what they like
to do. We have our own opinions on what we should be doing in a gym, because then, if you have
those options, we are doing things we like, and not being forced to do something we don't like."

This quote is meaningful as the student and group agreed, there should be less emphasis on
varsity athletics/competitive models and more emphasis placed into recreational opportunities.

Recommendations to survey students following the dissemination of this research is essential to
gather perspective of preferred activity opportunities. Additionally, highlighted above, things
such as burnout and sport specialization might be reducing the emphasis on the traditional
competitive nature of sports (Bell et al., 2019; Bennett et al., 2020; Legg et al., 2018).

It was also suggested by Sandy from Paul Joseph Junior High School that "creating more mentorship opportunities with older students/athletes might help you obtain personal goals and what to strive for." This was referenced towards specific levels of varsity sport during the conversation and was directly disassociated through the survey data. That said, perhaps this suggestion can play a role when directed towards recreational opportunity. By including a variety of supervisors/peer mentors in less competitive situations could potentially increase value in

seeing what influential upper class-persons are doing rather than being only exposed to overbearing coaches, athletes, parents, and community members.

In conclusion, school and community activity options need to directly reassociate and reallocate resources to prioritize events that include leisure, recreation and fun. It is emphasized to start these options young (Charlton et al., 2014), and by doing so, we may see an increase in adolescent participation in movement and exercise associated with youth sport. Thus, creating opportunities to directly improve various levels of personal and academic achievements and lifestyle. By emphasizing this, it would also be necessary to include resources to provide transportation options, recreational facility and activity improvements that increase accessibility, and likely limit fees and/or cost that may be associated with participation.

Limitations

It is important to reference a few limitations regarding the data collected. First and foremost, creating a sense of "buy-in" with the 400+ students was challenging. The challenge to survey minors in a school setting is also stated in the *Routledge Handbook of Youth Sport* (Green et al., 2016). The author of this particular research does not have much direct association with these students, and it was observed during the administration of the surveys, that several students per class hour may not have taken the surveys seriously. This could be demonstrated in the sense that 73 students of the 406 did not complete the survey. However, that is only speculation. It was also observed that many students may not have answered the GPA question accurately, as several questions were asked during the completion of the surveys about how to specifically answer this question. Lastly, the emphasis that lack of variety within activity events became noticeable as the results and transcripts were further analyzed. It likely should be included as a

future survey option related to barriers, whether students are not active because their preferred activity is not being offered within their community or school sponsored activity events.

CHAPTER II: DISSEMINATION

The benefits of researching facilitators and barriers of increased youth sport participation are to provide a foundation of information needed to attempt intervention to mitigate the decline of participation in these types of activity events. This project is designed to be disseminated with public K-12 school administration, as well as community activity outlets, such as the YMCA and youth sports programs. Identified in the initial problem statement, locally, the author has recognized a decrease in program numbers within the youth baseball/softball leagues. This project has also been identified as high level interest through informal conversation with direct public administrators. Their vested interest helped streamline IRB and district approvals.

Through effective collaboration within the organizations previously mentioned, we will use this data to increase physical activity opportunities associated with community and school district sponsorships based on the needs of the participants who were surveyed. In working with administrators and community leaders in this capacity, this will strengthen the opportunity for the targeted population to increase academic performance, participate in less-risky behavior, as well as improve social-emotional health (Resaland et al., 2016, Hurd & Deutsch, 2017, Taylor et al., 2017). The findings related to improvement in all areas identified will demonstrate the value of offering a plethora of extra-curricular physical activity events to as many children as possible. Typically, the target audience for change are individuals who have power to implement new policy that can directly adhere to the barriers identified in this research.

Unique to the targeted geographical area of this study, is its size. Being that the community is relatively small, the author has a previously established working relationship with public K-12 schools, and community leaders. The author serves as a consultant to a local youth baseball board and spends time volunteering with youth sports through coaching opportunities.

The accessibility to collaborate with the stakeholders mentioned above is open and available. Communication with administrators, stakeholders, leaders, and board members will be made to set up a time to share a presentation on the findings of this study. Much communication has already been established during the preliminary research stages with many aforementioned individuals. Those previously contacted have much anticipation for the dissemination of this research.

The presentation (Appendix E) is outlined to be informational. The literature to support extra-curricular physical activity participation emphasizes its unique benefits. This will be introduced and highlighted to ensure buy-in of importance from the target audience. From there, the methodology of the study will be shared. A breakdown of the procedures, working through small group discussions to survey distribution will be important to share why both were necessary to include in this project. As the presentation continues, it will be important to mention that speculation from adults/superiors are noted but not always correct. This is the first time, to any previous known knowledge, that ninth graders have been surveyed in this capacity. Results will follow, emphasizing the student's voices who were interviewed and surveyed. At the end of the presentation, I will conclude with closing questions I want the audience to consider, and a small discussion on what steps can we immediately take to attempt intervention.

Script: Presentation

Slide 1: Introduction

Hello. My name is Paul Haas, and I am here today to share information about the declining participation numbers of youth (specifically adolescents) in extra-curricular physical activity programs, and what we can possibly do to help reverse this trend. The title of my presentation is "Identifying Barriers Limiting Youth Sport Participation Among Adolescents".

This research topic is meaningful to me as I have dedicated my entire adult life to further bettering the physical wellbeing of children. In working as a physical education teacher in both K-12 and post-secondary environments, I truly believe education continues outside the classroom. I have worked and volunteered much of my spare time in the past 15 years working on youth development programs in many physical activity opportunities as a coach and volunteer.

Slide 2: Alarming Research

Overviewing the decline of participation numbers in the past 15 years is alarming. If we date back to 2008, a study titled "Project Play" suggests that in a 5 year span, kids 6 to 12 had decreased in nationwide participation by nearly 3 million children. This trend has continued to be identified worldwide, as it is estimated adolescents in general are simply not meeting activity recommendations and continue to see decreased activity time as they age. By the time children reach 13, only 3 out of 10 adolescents will be participating in some form of youth sport. Locally, the Plover/Whiting Youth Association has seen a decline in the baseball/softball numbers from nearly 1200 in 2015 to just over 800 in 2022. This is a 30% decrease in just 7 years – in a community that is seeing gradual growth to their general population.

Slide 3: The What and the Why?

What might be causing this decline? While preparing the literature review for this research topic, it should be noted that all suggestive material related to the decline in youth activity numbers was mostly adult/published author speculation. While many of these topics here are likely relatable there is very limited evidence that youth (specifically adolescents) have been asked what might be keeping them away from these recreational opportunities. That said, many have suggested these need to be identified as plausible reasons for the decline.

Sport Specialization is highlighted here, as this is something that could be related to burnout. If a child is encouraged and/or forced to spend their spare time concentrating on one thing from a very young age, it has been determined that these children may experience resentfulness towards said experiences and events. This can lead to, once provided with the choice to withdraw from said activity. In essence, this also leaves an adolescent exposed to the limitation from other activities starting at a later age. This can be discouraging if behind their peers in skill, and lead to the disengagement from trying something new. Many authors suggest that exposing children to multiple skill development opportunities across many different environments not only lets the children figure out what they might like, but gives them fallback in case something does not work out.

Socioeconomic Status is likely an obvious one to consider, as today's prices for just about everything continue to increase. But referencing costs of registration, new equipment, travel, etc. can be very taxing on a family who may not have the disposable income to dedicate to a child's recreation. For families who may have limited income, considering the working age of adolescents is also important. Speculation references that it may be more important for a 15 year old to work instead of dedicating time to recreation so they may either support their family if needed, or at the very least have spending money of their own that their guardians are unable to provide.

Parental and Social influences are also speculated to have an influence on decline.

Referencing parents, if their ideologies do not align with activity, it may be difficult to encourage their children to engage in such events. This also references parental responsibilities. As most youth, especially the ones we are referencing here, rely on parents for transportation, payment of fees, new equipment, etc. If parents are too busy working, or engaging in other activities

regarding their own social needs, neglecting their children's needs, this can lead to the limited participation scale. Social influences such as friend participation and/or bullying/hazing are also speculated to be influential on participation. Digital media is a tricky subject. As many adults are referenced throughout the literature to state that today's youth spend too much time on their devices and social media. While we all have an opinion on this subject, an isolated study is necessary to conclude such factors. Where this topic comes into play related to this subject area, is whether or not digital media is preferred over sport and/or recreation. Again, we need to what preference is from our target population, not what is speculated from someone/a group outside of the target population.

Lastly, COVID needs to be referenced. COVID has reduced the amount of people we can let into a facility at one time, use locker rooms, ride the bus, etc. It also increases stress and anxiety for those who have underlying health concerns. And it may be more ideal for someone to steer clear from group participation in these events and just stick to doing their own thing.

Slide 4: The Benefits to Promoting Physical Activity Recreation Engagement

This research targets more than just increase to physical activity as being beneficial for an individual. While much can be said and is typically understood that these types of events benefit one's overall physical health, much more needs to be underlined related to what physical activity in a community or school setting can do for those willing to increase their involvement. Overall, when we look at what these settings can offer to those who utilize this opportunity, we see an impact that is holistic in a positive manner to one's personal, social and cultural development. Individualized increase to physical activity benefits one's health, but can also increase academic performance. Ideal for school outcomes and goals. That said, many children and adolescents do not necessarily obtain the skills to remain active in a capacity that would influence this type of

change. Therefore, these settings of school and community based opportunities are important to invest in to help support socialization, emotional health, problem solving, teamwork, and collaboration skills to name a few. It should also be noted that participation in such events in these settings can also reduce risky behaviors outside of school hours. If students are engaged in activity, there is less time and opportunity for them to get into trouble in unsupervised situations.

Slide 5: Purpose

The purpose of this data is to put speculation to rest regarding this specific community. The goal is simply to define what is working well for those students engaged in activity, and what keeps them engaged. Once defined, try to find ways to implement more of what is working well. Opposite to what is working well, this research needs to also identify the barriers. Barriers that are keeping our targeted audience from participating in these events need intervention. Which, in essence, we can't provide said intervention without figuring out what the problem truly is.

Slide 6: Methods

To begin the 2022-2023 school year, assent forms were sent home with all ninth grade students during their introduction to their upcoming physical education classes. The assent forms were created through the IRB process and in collaboration with both junior high school principals. Distribution was carried out through cooperating physical education teachers. Any parent wishing to opt their child out from participating in data collection had the ability to do so. Returned forms were accepted up until one month after the first day of school. Throughout the district we received 7 forms wishing to have their child excluded from research participation. At the start of October, I visited both junior high schools in the district and participants were selected to participate in a small group discussion. Later, surveys would be distributed to all

ninth grades.

The literature related to this research area, provided a solid foundation to the framework of the survey that was to be distributed to all ninth grade students in the district. To solidify the survey, a series of questions were created to present to two small groups representing each junior high school in the district. As mentioned before, while the literature did provide a broad range of topics to address, the targeted audience had not had an opportunity to express their perceptions of potential real issues. These questions were meant to be open ended to trigger discussion topics that might have been meaningful to those participating. At junior high school A, 3 students participated, at junior high school B, 4 participated in the discussion. After a question was asked, each student took turns sharing their perspective on the topic presented. Little additional prompting was needed to encourage thoughtful response. It was observed that the students were well versed, passionate, and excited to have the opportunity to share their opinions on the topics. To overview, the small group discussions asked students for general background of benefits to physical activity, to describe their current participation outside of school hours, what influences them to stay active, what might limit their participation, and to offer any suggestions that may enhance their preferred activity area.

Slide 7: Methods Cont.

After the discussions took place, I spent the next few weeks transcribing and identifying important themes that overlapped each discussion. These themes helped add to the responses for the final two questions on the survey. The survey asked basic demographic information such as gender, race, GPA, and current participation in extracurricular activities. The final two questions asked the students to rank the most meaningful facilitators and barriers related to their personal preferences of participation in these types of activity events. The survey was uploaded to the

Qualtrics software system and was distributed during ninth graders' physical education class throughout November 2022. I was present to introduce the survey to all participants. I felt it necessary to explain why it was important, and encourage everyone to answer the questions to the best of their ability and honestly. After the brief introductions, the collaborating PE teachers made the link available for the students in class. Once completed, students could get warmed up for their upcoming physical education class. In all, 17 ninth grade classes were surveyed, resulting in 406 total submissions. Those who were not present on the days of survey distribution did not get an opportunity to take the survey at a later date. This was to reduce anyone who still may have had access to the link would not have the opportunity to take the survey multiple times.

Slide 8: Analysis

Initial analysis using the transcriptions from discussions helped identify two additional responses for question 9 targeting facilitators that influence participation. Those two were stress relief and positive mentor associations with varsity athletes. No additional information/responses were added to question 10. There were, however, statements that were highlighted during the analysis of the transcriptions that would later be used during discussions of findings to strengthen and support data.

Data was analyzed through excel initially. The information shared in the surveys needed to be coded to run descriptive statistics and correlation information. Using a weighted mean method, first I discovered the responses that were identified most important to staying active as well as most important to limiting participation. I also felt it necessary to identify the bottom two responses from these categories. Once these factors were identified, cross-tabulation using a chi-square test analyzed whether there were any demographic differences between race, gender and

GPA. Lastly, I identified the most important factors that influence participation from those students who responded that they participate in 5 or more activity events, and then the most important barriers for those students who responded that they participate in 0 activity events.

Slide 9: Results

I think the most important part of this data is demonstrated through the support that the students surveyed seem to be deemphasizing competition and focusing more on fun and recreation to stay active (even if it is in a competitive situation). The most important factors related to facilitators were students wanting to have fun and use activity as a stress reliever. They do not care whether a varsity team is doing well and can associate with that, and feel overwhelmed with pressure of competition, whether that is by parents and/or coaches. Time and getting to and from their preferred activities are also very limiting in how one can utilize extracurricular activities.

I believe we need to reassociate and reallocate resources to prioritize events that include leisure, recreation and fun. By doing so, we may see an increase in adolescent participation in movement and exercise. Thus, creating opportunities to directly improve various levels of personal and academic achievements and lifestyle. By emphasizing this, it would also be necessary to include resources to provide transportation options, recreational facility and activity improvements that increase accessibility, and likely limit fees and/or cost that may be associated with participation.

Slide 10: Thank You

Any questions?

Long-Term

The presentation and dissemination of this research will be immediately shared with the participating school district and community upon completion. The long-term goal is to present and potentially include the near 10 neighboring school districts located within a 45-mile radius of the pilot district/community. This dissemination to neighboring communities can help further expand the sample size of the data collection and lead to further intervention and action expanding on long term goals.

CHAPTER III: ACTION

Immediate Impact

The data collected from focus groups and surveys will theoretically provide a framework for the author to work with community leaders, stakeholders, and school administration to include intervention possibilities to overcome barriers. These examples can include and are not limited to resourcing of waiver fees, scholarships, equipment needs, additional school/community programming options (specifically less competitive options), and other necessary supports that may hinder student participation in recreational activity. It will also be necessary to invest in facilitators that have been provided by the survey data that seemingly work to keep adolescents motivated to continue participation. The initial goal will be to expand extracurricular opportunities following the 2022-2023 school year.

In the early stages of organizing this research topic, a significant amount of communication was made with the participating school district in efforts to verify their collaboration. During this time, substantial conversation regarding the background information of this research topic took place with the administrator of the district's summer school programming. Within these conversations, planning was initiated to alter the programming of the district's summer school offerings. Supported by the Plover/Whiting Youth Athletics

Association and the participating school district, during the summer of 2023, I will be creating a pilot program focusing on youth movement and foundational skill development related to youth sport offered in our community. The pilot program is directly designed to align with this research topic.

The curriculum of this program, still in early stages of development, will support leisure and fun, while also including sustainable fundamental movement development. This has been

recommended by the survey data. The program will span across grade levels 1-8 in efforts to create lasting, and socially supported options that can be carried with participants into advanced secondary programs. As ninth graders were surveyed for this topic, their previous sport and recreation experiences are what led to their choice selection when completing the survey. While it is in the research's best interest to address barriers currently affecting the targeted population, district administration has indicated their priority in creating a proactive approach developing these positive opportunities for the community to grow up with. Rather than being solely reactive to the targeted population's responses.

As the pilot program concludes in late summer of 2023, the district and I intend to survey and evaluate all participants on their experiences from the summer program. The data collected here, as well as the data from this research topic, will work to include more opportunities throughout all ages in the coming years. A longitudinal study is in the plans to determine whether intervention at younger ages may help support participation as teenagers.

Expanding Data Collection

One of the limitations to this study is the geographical location and limited diversity among the surveyed population. The population surveyed, in addition to having limited diversity, does not share the same limitations to rural communities within the immediate half hour radius of the initial community surveyed. While the initial community is suspected to offer varying levels of socioeconomic status, the community itself is not considered rural or of lower socioeconomic status compared to those surrounding communities. Other surrounding communities do not have access to resources such as YMCA, Boys and Girls Club, various other community sport recreation opportunities to name a few. It is imperative to collect data from outside the original population to see if any differences in demographics alters the data.

Within the next few years, communication will be established with the surrounding communities mentioned above to propose the possibility of surveying their school districts in the same capacity as the initial school district/community. To compare across this general region, an additional 9 school districts have been targeted for survey completion. This expansion of data collection will offer two hypotheses and potential conclusions. First, we may find that this region in general has similar ideologies in identifying barriers and facilitators related to extra-curricular participation. And successful intervention, if any at the time of analysis, may be attempted in different areas. Or second, with the identification of new barriers and facilitators personalized by different communities can lead to the attempt of new intervention strategies related to survey results. Additionally, in any regard, active recruitment of community stakeholders may be necessary to help provide such intervention resources. Grants to provide monetary incentive to support newly expanded programs may also be necessary.

Being that this study is theoretically a pilot study, the additional data collected from potential surrounding communities can also lead to further national dissemination and publications. It is recognized that one data collection may limit the willingness of other authors to attempt this research, therefore I plan to add to this body of data collection in the coming years so that this methodology can be used by many future authors.

National Awareness

SHAPE America has a national campaign titled "Health. Moves. Minds." This campaign has been widely shared across national and regional conferences. This campaign is used to support new physical education and health education curriculums, as well as advocate to federal legislators on the benefits of today's physical education programs. This then leads to increased appropriation levels of our federal education act, which has increased from \$400,000 in 2015 to

over \$4 billion in 2022. On first hearing of this campaign while attending SHAPE America's Speak Out Day, I was inspired by all the evidence based support related to this campaign that has made a difference in so many schools across America. These success stories have fueled my passion towards my research topic.

The long-term action plan associated with this data collection, is to have identified an intervention, or multiple intervention strategies, that have created success stories related to this topic. By concluding these potential outcomes, I plan to share with SHAPE America and its event Speak Out Day. Speak Out Day's national advocacy campaign is a prime opportunity to get this data into the hands of policy makers at a federal level. If there is proof in the data that successful intervention has led to overall better health and well-being, potentially improved academic performance, has potentially limited risky behaviors among youth, etc., policy makers may be more inclined to offer their full support of appropriation for the federal bill that supports K-12 education and its programs. Programs such as the initial pilot program mentioned in this chapter can directly, not only influence the support needed for sustainability, but also theoretically fuel itself through the appropriation of acts like this.

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APPENDIX A: STUDENT SURVEY

1.	Do you agree to take this survey?	8.	Are you currently aware of the opportunities your community and school offer for physical activity recreation?
	b. No		a. Yes
			b. No
2.	Identify Sex:	9.	Please Rank the factors that may influence your participation in continuing
	a. Male		your community and school physical activity opportunity. Designate the
	b. Female		lowest number (1) for the most influential, and the highest number () as
	c. Neutral		the least likely cause limiting your participation.
	 Prefer not to specify 		a. : Positive association with coach
3.	Identify Race:		b. : Positive association with varsity athletes (mentoring and/or
	a. White/Caucasian		success)
	b. Black/African American		c. : Competition
	c. Asian/Hmong		d: Friends participate in similar activity interests
	d. Native American		e. : Individual skill success
	e. Hispanic/Latino		f: Fun and/or stress reliever
	f. Other		g. : Personal Health (I know this is good for me and my health)
4		10	Please Rank the factors that may limit your participation in a VARIETY of
4.	My parents/guardians currently have:	10.	community and school physical activity opportunity. Designate the lowest
	a. 2 working adults		number (1) for the most influential, and the highest number () as the least
	b. 1 working adult		likely cause limiting your participation.
	c. 0 working adults		a: Cost
	d. Prefer not to say		b: Ability to get to and from facility (no ride)
5.	My last quarter GPA was:		c: Ability to access facility (are other programs using the
	a. 1.0-1.99		facility – therefore I don't have as much of an opportunity as I
	b. 2.0-2.99		would like)
	c. 3.0-3.99		d. : Social Influence (bullying and/or friends do not participate
	d. 4.0		- therefore I have no interest)
6.	Currently I participate in school or community		e: Time (work and/or homework and/or watching siblings
	sponsored physical activity opportunities a year (ex:		and/or other responsibilities)
	something you/guardian sign up for and commit designated		f: I am committed to one sport, therefore do not seek multiple
	time slots of your schedule to - Rec leagues, gym		sport/activity opportunities and/or alternative physical activity
	memberships, taekwondo, trap league, etc.)?		opportunities
	a. 0		g. : Your personal health (physically unable)
	b. 1-2		h: Preferred Recreation includes (TV, Device, Gaming,
	c. 3-4		Computer, etc.)
	d. 5+		Parental Influence: I align my priorities similar to my parent's
7.	Currently I participate in individually supported		interests which does not typically involve physical activity
/.	physical activity opportunities per month (ex: pick up games		j. : COVID
	of basketball/other sport, recreational golf/disc golf,		J
	mountain biking, jogging, walking dog, etc.)		
	a. 0		
	a. 0 b. 1-2		
	c. 3-4 d. 5+		
	u. J ⁺		

APPENDIX B: DATA TABLES

Crosstabulation: Sex, Race, GPA – compared to – Friends participate in similar activity interests

GPA_New * Q9_4_Friends participate in similar activity interests Crosstabulation

				Friend	s participa	te in simila	r activity in	iterests		Total
			1	2	3	4	5	6	7	
		Count	8	9	4	8	7	10	5	51
	2.00	% <u>within</u> GPA_New	15.7%	17.6%	7.8%	15.7%	13.7%	19.6%	9.8%	100.0%
	PA Ne	Count	37	33	22	29	34	13	16	184
GPA_Ne W	3.00	% within GPA_New	20.1%	17.9%	12.0%	15.8%	18.5%	7.1%	8.7%	100.0%
		Count	15	15	8	15	7	7	5	72
	4.00	% <u>within</u> GPA_New	20.8%	20.8%	11.1%	20.8%	9.7%	9.7%	6.9%	100.0%
		Count	60	57	34	52	48	30	26	307
Total		% <u>within</u> GPA_New	19.5%	18.6%	11.1%	16.9%	15.6%	9.8%	8.5%	100.0%

Race_Others * Q9_4 Friends participate in similar activity interests Crosstabulation

	•		Friends participate in similar activity interests							
			1	2	3	4	5	6	7	
	045	Count	10	13	5	11	10	6	8	63
Race_Othe	Other s	% <u>within</u> Race_Others	15.9%	20.6%	7.9%	17.5%	15.9%	9.5%	12.7%	100.0%
	White	Count	50	44	29	42	38	24	18	245
		% within Race_Others	20.4%	18.0%	11.8%	17.1%	15.5%	9.8%	7.3%	100.0%
		Count	60	57	34	53	48	30	26	308
Total		% <u>within</u> Race_Others	19.5%	18.5%	11.0%	17.2%	15.6%	9.7%	8.4%	100.0%

Sex * Friends participate in similar activity interests Crosstabulation

			Friends participate in similar activity interests							Total
			1	2	3	4	5	6	7	
	Famala	Count	31	29	12	22	22	17	13	146
	Female	% within Sex	21.2%	19.9%	8.2%	15.1%	15.1%	11.6%	8.9%	100.0%
0	Mala	Count	24	24	19	29	21	13	12	142
Sex	Sex Male	% within Sex	16.9%	16.9%	13.4%	20.4%	14.8%	9.2%	8.5%	100.0%
	045	Count	5	4	3	2	5	0	1	20
	Others	% within Sex	25.0%	20.0%	15.0%	10.0%	25.0%	0.0%	5.0%	100.0%
Total		Count	60	57	34	53	48	30	26	308
Total	Total	% <u>within</u> Sex	19.5%	18.5%	11.0%	17.2%	15.6%	9.7%	8.4%	100.0%

$Crosstabulation: Sex, Race, GPA-compared \ to-Fun\ and/or\ stress\ reliever$

GPA_New * Q9_6 Fun and/or stress reliever Crosstabulation

					Fun and	or stress	reliever			Total
			1	2	3	4	5	6	7	
		Count	11	10	5	7	7	5	6	51
	2.00	% <u>within</u> GPA_New	21.6%	19.6%	9.8%	13.7%	13.7%	9.8%	11.8%	100.0%
004 11-		Count	33	30	34	20	20	18	29	184
GPA_Ne w	3.00	% <u>within</u> GPA_New	17.9%	16.3%	18.5%	10.9%	10.9%	9.8%	15.8%	100.0%
		Count	20	13	10	7	11	4	7	72
	4.00	% <u>within</u> GPA_New	27.8%	18.1%	13.9%	9.7%	15.3%	5.6%	9.7%	100.0%
		Count	64	53	49	34	38	27	42	307
Total		% <u>within</u> GPA_New	20.8%	17.3%	16.0%	11.1%	12.4%	8.8%	13.7%	100.0%

Race_Others * Q9_6 Fun and/or stress reliever Crosstabulation

					Fun and	l/or stress	reliever			Total
			1	2	3	4	5	6	7	
		Count	11	12	14	4	10	6	6	63
Race Other	Others	% <u>within</u> Race_Others	17.5%	19.0%	22.2%	6.3%	15.9%	9.5%	9.5%	100.0%
S.		Count	53	41	35	30	28	22	36	245
	White	% within Race_Others	21.6%	16.7%	14.3%	12.2%	11.4%	9.0%	14.7%	100.0%
		Count	64	53	49	34	38	28	42	308
Total		% <u>within</u> Race_Others	20.8%	17.2%	15.9%	11.0%	12.3%	9.1%	13.6%	100.0%

Sex_Others * Q9_6 Fun and/or stress reliever Crosstabulation

						Total .				
			1	2	3	4	5	6	7	
		Count	31	24	22	18	24	15	12	146
	Female	% <u>within</u> Sex Others	21.2%	16.4%	15.1%	12.3%	16.4%	10.3%	8.2%	100.0%
Cov Other		Count	28	25	24	15	13	9	28	142
Sex Other s.	Male	% <u>within</u> Sex Others	19.7%	17.6%	16.9%	10.6%	9.2%	6.3%	19.7%	100.0%
		Count	5	4	3	1	1	4	2	20
	Others	% <u>within</u> Sex_Others	25.0%	20.0%	15.0%	5.0%	5.0%	20.0%	10.0%	100.0%
		Count	64	53	49	34	38	28	42	308
Total		% <u>within</u> Sex_Others	20.8%	17.2%	15.9%	11.0%	12.3%	9.1%	13.6%	100.0%

Crosstabulation: Sex, Race, GPA - compared to - positive association with varsity athletes

<u>GPA_New</u> * Q9_2_<u>Positive</u> association with varsity athletes (mentoring and/or success) Crosstabulation

			Positive	associatio	n with vars	ity athletes	(mentorin	g and/or s	uccess)	Total
			1	2	3	4	5	6	7	
		Count	0	5	10	9	12	8	7	51
	2.00 GPA_Ne 3.00	% within GPA New	0.0%	9.8%	19.6%	17.6%	23.5%	15.7%	13.7%	100.0%
		Count	9	20	21	24	31	44	35	184
W.	3.00	% <u>within</u> GPA_New	4.9%	10.9%	11.4%	13.0%	16.8%	23.9%	19.0%	100.0%
		Count	0	4	10	14	10	15	19	72
	4.00	% within GPA_New	0.0%	5.6%	13.9%	19.4%	13.9%	20.8%	26.4%	100.0%
		Count	9	29	41	47	53	67	61	307
Total		% <u>within</u> GPA_New	2.9%	9.4%	13.4%	15.3%	17.3%	21.8%	19.9%	100.0%

Race_Others * Q9_2_Positive association with varsity athletes (mentoring and/or success) Crosstabulation

			Positive association with varsity athletes (mentoring and/or success)									
			1	2	3	4	5	6	7			
		Count	1	5	9	10	13	14	11	63		
Race_Other	Others	% <u>within</u> Race_Others	1.6%	7.9%	14.3%	15.9%	20.6%	22.2%	17.5%	100.0%		
S.		Count	8	25	32	37	40	53	50	245		
	White	% within Race_Others	3.3%	10.2%	13.1%	15.1%	16.3%	21.6%	20.4%	100.0%		
		Count	9	30	41	47	53	67	61	308		
		% within Race_Others	2.9%	9.7%	13.3%	15.3%	17.2%	21.8%	19.8%	100.0%		

 $\underline{\textbf{Sex_Others}} * \textbf{Q9} \underline{\textbf{2. Positive}} \text{ association with varsity athletes (mentoring and/or success) Crosstabulation}$

			Pos	Positive association with varsity athletes (mentoring and/or success)						
			1	2	3	4	5	6	7	
		Count	5	12	18	21	26	34	30	146
	Female	% <u>within</u> Sex_Others	3.4%	8.2%	12.3%	14.4%	17.8%	23.3%	20.5%	100.0%
0 0#		Count	3	16	22	21	26	26	28	142
Sex_Other §	Male	% <u>within</u> Sex_Others	2.1%	11.3%	15.5%	14.8%	18.3%	18.3%	19.7%	100.0%
		Count	1	2	1	5	1	7	3	20
(Others	% <u>within</u> Sex_Others	5.0%	10.0%	5.0%	25.0%	5.0%	35.0%	15.0%	100.0%
		Count	9	30	41	47	53	67	61	308
Total		% <u>within</u> Sex_Others	2.9%	9.7%	13.3%	15.3%	17.2%	21.8%	19.8%	100.0%

$Crosstabulation: Sex, Race, GPA-compared \ to-Competition \\$

Sex_Others * Q9_3_Competition Crosstabulation

					C	Competitio	n			Total
			1	2	3	4	5	6	7	
	FI	Count	15	17	19	19	17	20	39	146
	Femal e	% <u>within</u> Sex_Others	10.3%	11.6%	13.0%	13.0%	11.6%	13.7%	26.7%	100.0%
0 0.!!		Count	26	16	21	15	25	15	24	142
Sex_Othe	Male	% <u>within</u> Sex_Others	18.3%	11.3%	14.8%	10.6%	17.6%	10.6%	16.9%	100.0%
		Count	3	1	2	3	5	0	6	20
Oti	Others	% <u>within</u> Sex_Others	15.0%	5.0%	10.0%	15.0%	25.0%	0.0%	30.0%	100.0%
		Count	44	34	42	37	47	35	69	308
Total		% <u>within</u> Sex_Others	14.3%	11.0%	13.6%	12.0%	15.3%	11.4%	22.4%	100.0%

Race_Others * Q9_3_Competition Crosstabulation

			Competition							Total
			1	2	3	4	5	6	7	
		Count	8	7	6	9	7	8	18	63
Race_Other	Others	% within Race_Others	12.7%	11.1%	9.5%	14.3%	11.1%	12.7%	28.6%	100.0%
S.	White	Count	36	27	36	28	40	27	51	245
		% within Race_Others	14.7%	11.0%	14.7%	11.4%	16.3%	11.0%	20.8%	100.0%
		Count	44	34	42	37	47	35	69	308
Total		% within Race_Others	14.3%	11.0%	13.6%	12.0%	15.3%	11.4%	22.4%	100.0%

GPA_New * Q9_3_Competition Crosstabulation

				Competition								
			1	2	3	4	5	6	7			
		Count	9	6	7	4	7	3	15	51		
	2.00	% <u>within</u> GPA_New	17.6%	11.8%	13.7%	7.8%	13.7%	5.9%	29.4%	100.0%		
	3.00	Count	27	19	20	26	29	24	39	184		
GPA_Ne W		% <u>within</u> GPA_New	14.7%	10.3%	10.9%	14.1%	15.8%	13.0%	21.2%	100.0%		
	4.00	Count	8	9	14	7	11	8	15	72		
		% <u>within</u> GPA_New	11.1%	12.5%	19.4%	9.7%	15.3%	11.1%	20.8%	100.0%		
		Count	44	34	41	37	47	35	69	307		
Total		% <u>within</u> GPA_New	14.3%	11.1%	13.4%	12.1%	15.3%	11.4%	22.5%	100.0%		

$Crosstabulation: Sex, \, Race, \, GPA-compared \,\, to-Time$

				Time (work and/or homework and/or watching siblings and/or other responsibilities)									
			1	10	2	3	4	5	6	7	8	9	
		Count	6	0	10	6	12	6	7	2	1	1	5
GPA_Ne.	2.00	% within Time	8.0%	0.0%	16.7%	13.6%	31.6%	16.2%	29.2%	14.3%	14.3%	20.0%	16.6%
	3.00	Count	46	1	32	27	21	28	12	8	6	3	184
		% within_Time	61.3%	33.3%	53.3%	61.4%	55.3%	75.7%	50.0%	57.1%	85.7%	60.0%	59.9%
	4.00	Count	23	2	18	11	5	3	5	4	0	1	7
		% within Time	30.7%	66.7%	30.0%	25.0%	13.2%	8.1%	20.8%	28.6%	0.0%	20.0%	23.59
		Count	75	3	60	44	38	37	24	14	7	5	30
otal		% within Time	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.09

	Race_Others * Q10_5_Time (work and/or homework and/or watching siblings and/or other responsibilities) Crosstabulation												
				Time (work and/or homework and/or watching siblings and/or other responsibilities)									
			1	10	2	3	4	5	6	7	8	9	
	Count		12	1	10	8	13	7	5	5	1	1	63
	Others	% within Time	16.0%	33.3%	16.7%	18.2%	34.2%	18.4%	20.8%	35.7%	14.3%	20.0%	20.5%
Race_Other s.	White	Count	63	2	50	36	25	31	19	9	6	4	245
		% within Time	84.0%	66.7%	83.3%	81.8%	65.8%	81.6%	79.2%	64.3%	85.7%	80.0%	79.5%
Total		Count	75	3	60	44	38	38	24	14	7	5	308
		% within Time	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Sex	Sex_Others * Q10_5_Time (work and/or homework and/or watching siblings and/or other responsibilities) Crosstabulation												
	Time (work and/or homework and/or watching siblings and/or other responsibilities)												
			1	10	2	3	4	5	6	7	8	9	
	Female	Count	42	2	36	22	16	13	10	1	3	1	146
		% within Time	56.0%	66.7%	60.0%	50.0%	42.1%	34.2%	41.7%	7.1%	42.9%	20.0%	47.4%
Sex_	Male	Count	28	1	23	19	19	23	10	11	4	4	142
Other s		% within Time	37.3%	33.3%	38.3%	43.2%	50.0%	60.5%	41.7%	78.6%	57.1%	80.0%	46.1%
	Others	Count	5	0	1	3	3	2	4	2	0	0	20
		% within Time	6.7%	0.0%	1.7%	6.8%	7.9%	5.3%	16.7%	14.3%	0.0%	0.0%	6.5%
Total		Count	75	3	60	44	38	38	24	14	7	5	308
		% within Time	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Crosstabulation: Sex, Race, GPA - compared to - Ability to get to and from facility

Sex_Others * Q10_2_Ability to get to and from facility (no ride Crosstabulation

					Ability to get to and from facility (no ride								
			1	10	2	3	4	5	6	7	8	9	
		Count	22	3	37	26	11	18	9	7	9	4	146
	Fem ale	% <u>within</u> Sex_Others	15.1 %	2.1%	25.3 %	17.8 %	7.5%	12.3 %	6.2%	4.8%	6.2%	2.7%	100.0
		Count	29	1	33	23	15	7	13	6	8	7	142
Sex_Ot hers	Male	% <u>within</u> Sex_Others	20.4 %	0.7%	23.2 %	16.2 %	10.6 %	4.9%	9.2%	4.2%	5.6%	4.9%	100.0
	045	Count	2	0	6	1	7	2	1	1	0	0	20
	Other s	% <u>within</u> Sex_Others	10.0 %	0.0%	30.0 %	5.0%	35.0 %	10.0 %	5.0%	5.0%	0.0%	0.0%	100.0
		Count	53	4	76	50	33	27	23	14	17	11	308
Total		% <u>within</u> Sex_Others	17.2%	1.3%	24.7%	16.2%	10.7%	8.8%	7.5%	4.5%	5.5%	3.6%	100.0 %

Race_Others * Q10_2 Ability to get to and from facility (no ride Crosstabulation

					Ability to get to and from facility (no ride								Total
			1	10	2	3	4	5	6	7	8	9	
	0.11	Count	14	1	19	9	8	2	3	2	3	2	63
	Othe rs	% <u>within</u>	22.2	1.6%	30.2	14.3	12.7	3.2%	4.8%	3.2%	4.8%	3.2%	100.0
Race_Ot	13	Race_Others	%	1.076	%	%	%	J.Z /6	4.0 /0	J.Z /0	4.0 /0	J.Z /0	%
hers	1075-14	Count	39	3	57	41	25	25	20	12	14	9	245
	Whit e	% <u>within</u>	15.9	1.2%	23.3	16.7	10.2	10.2	8.2%	4.9%	5.7%	3.7%	100.0
	C	Race_Others	%	1.270	%	%	%	%	0.276	4.5%	3.176	3.176	%
		Count	53	4	76	50	33	27	23	14	17	11	308
Total		% within	17.2	1.3%	24.7	16.2	10.7	8.8%	7.5%	4.5%	5.5%	3.6%	100.0
	Race_Others	%	1.3%	%	%	%	0.0%	1.0%	4.0%	0.0%	3.0%	%	

GPA_New * Q10_2_Ability to get to and from facility (no ride Crosstabulation

				Ability to get to and from facility (no ride)								Total	
			1	10	2	3	4	5	6	7	8	9	
		Count	7	0	17	9	4	3	3	4	0	4	51
	2.00	% <u>within</u> GPA_New	13.7%	0.0%	33.3%	17.6%	7.8%	5.9%	5.9%	7.8%	0.0%	7.8%	100.0 %
		Count	36	2	42	28	18	18	14	6	14	6	184
GPA_N ew	3.00	% <u>within</u> GPA_New	19.6%	1.1%	22.8%	15.2%	9.8%	9.8%	7.6%	3.3%	7.6%	3.3%	100.0 %
		Count	10	2	16	13	11	6	6	4	3	1	72
	4.00	% <u>within</u> GPA_New	13.9%	2.8%	22.2%	18.1%	15.3%	8.3%	8.3%	5.6%	4.2%	1.4%	100.0 %
		Count	53	4	75	50	33	27	23	14	17	11	307
Total		% <u>within</u> GPA_New	17.3%	1.3%	24.4%	16.3%	10.7%	8.8%	7.5%	4.6%	5.5%	3.6%	100.0 %

$Crosstabulation: Sex, Race, GPA-compared \ to-COVID \\$

GPA_New * Q10_10 COVID Crosstabulation

					COVID								Total
			1	10	2	3	4	5	6	7	8	9	
		Count	6	30	2	0	1	1	1	2	6	2	51
	2.00	% <u>within</u> GPA_New	11.8%	58.8%	3.9%	0.0%	2.0%	2.0%	2.0%	3.9%	11.8%	3.9%	100.0 %
CDA N		Count	12	102	1	3	9	6	6	10	11	24	184
GPA_N ew	3.00	% <u>within</u> GPA_New	6.5%	55.4%	0.5%	1.6%	4.9%	3.3%	3.3%	5.4%	6.0%	13.0%	100.0 %
		Count	6	34	4	1	3	1	0	4	3	16	72
	4.00	% <u>within</u> GPA_New	8.3%	47.2%	5.6%	1.4%	4.2%	1.4%	0.0%	5.6%	4.2%	22.2%	100.0 %
		Count	24	166	7	4	13	8	7	16	20	42	307
Total		% <u>within</u> GPA_New	7.8%	54.1%	2.3%	1.3%	4.2%	2.6%	2.3%	5.2%	6.5%	13.7%	100.0 %

Race_Others * Q10_10 COVID Crosstabulation

					COVID							Total	
			1	10	2	3	4	5	6	7	8	9	
		Count	7	34	3	2	3	2	2	2	4	4	63
Race_Ot	Othe rs	% <u>within</u> Race_Others	11.1 %	54.0 %	4.8%	3.2%	4.8%	3.2%	3.2%	3.2%	6.3%	6.3%	100.0 %
hers	Whit	Count	17	133	4	2	10	6	5	14	16	38	245
	e	% <u>within</u> Race_Others	6.9%	54.3 %	1.6%	0.8%	4.1%	2.4%	2.0%	5.7%	6.5%	15.5 %	100.0 %
		Count	24	167	7	4	13	8	7	16	20	42	308
Total		% <u>within</u> Race_Others	7.8%	54.2%	2.3%	1.3%	4.2%	2.6%	2.3%	5.2%	6.5%	13.6%	100.0

Sex_Others * Q10_10 COVID Crosstabulation

					COVID								
			1	10	2	3	4	5	6	7	8	9	
	Fema	Count	8	80	4	2	5	4	3	6	9	25	146
	le	% <u>within</u> Sex_Others	5.5%	54.8%	2.7%	1.4%	3.4%	2.7%	2.1%	4.1%	6.2%	17.1%	100.0
0 04		Count	16	79	2	1	7	3	3	8	9	14	142
Sex_Ot hers	Male	% <u>within</u> Sex_Others	11.3%	55.6%	1.4%	0.7%	4.9%	2.1%	2.1%	5.6%	6.3%	9.9%	100.0
	Other	Count	0	8	1	1	1	1	1	2	2	3	20
	s	% <u>within</u> Sex_Others	0.0%	40.0%	5.0%	5.0%	5.0%	5.0%	5.0%	10.0%	10.0%	15.0%	100.0
		Count	24	167	7	4	13	8	7	16	20	42	308
Total		% <u>within</u> Sex_Others	7.8%	54.2%	2.3%	1.3%	4.2%	2.6%	2.3%	5.2%	6.5%	13.6%	100.0 %

Crosstabulation: Sex, Race, GPA – compared to – Parental Influence

<u>Sex_Others</u> * Q10_9 Parental Influence: I align my priorities similar to my <u>parents</u> interests which does not typically involve physical activity Crosstabulation

			Pare	Parental Influence: I align my priorities similar to my <u>parents</u> interests which									
					does	s not typ	ically inv	olve phy	sical ac	tivity			
			1	10	2	3	4	5	6	7	8	9	
	Fema	Count	2	11	3	5	9	7	18	24	27	40	146
	le	% within Sex_Others	1.4%	7.5%	2.1%	3.4%	6.2%	4.8%	12.3 %	16.4 %	18.5 %	27.4%	100.0 %
0 04		Count	4	17	4	6	7	6	17	15	33	33	142
Sex_Ot hers	Male	% within Sex_Others	2.8%	12.0 %	2.8%	4.2%	4.9%	4.2%	12.0 %	10.6 %	23.2 %	23.2%	100.0 %
	Other	Count	0	5	2	0	0	1	2	1	5	4	20
	S	% <u>within</u> Sex_Others	0.0%	25.0 %	10.0 %	0.0%	0.0%	5.0%	10.0 %	5.0%	25.0 %	20.0%	100.0 %
		Count	6	33	9	11	16	14	37	40	65	77	308
Total		% <u>within</u> Sex_Others	1.9%	10.7%	2.9%	3.6%	5.2%	4.5%	12.0%	13.0%	21.1%	25.0%	100.0

Race_Others * Q10_9 Parental Influence: I align my priorities similar to my <u>parents</u> interests which does not typically involve physical activity Crosstabulation

Parental Influence: I align my priorities similar to my parents interests which Total does not typically involve physical activity 10 Count 10 2 11 19 63 % within 15.9 17.5 30.2 100.0 12.7 1.6% 3.2% 3.2% 3.2% 6.3% 6.3% % Race_Ot Race Others Count 23 10 29 36 54 58 245 Whit 100.0 % within 11.8 14.7 22.0 23.7 2.0% 9.4% 2.9% 3.7% 5.7% 4.1% Race_Others % % Count 33 11 16 37 40 65 77 308 Total 21.1 25.0 100.0 % within 10.7 12.0 13.0 1.9% 2.9% 3.6% 5.2% 4.5% Race Others

<u>GPA_New</u> * Q10_9 Parental Influence: I align my priorities similar to my <u>parents</u> interests which does not typically involve physical activity Crosstabulation

Parental Influence: I align my priorities similar to my parents interests which Total does not typically involve physical activity 0 3 3 5 10 14 51 Count 2.00 % within 100.0 17.6% 0.0% 5.9% 2.0% 9.8% 5.9% 9.8% 19.6% 27.5% 2.0% GPA_New % 184 Count 23 37 48 15 19 GPA_ 3.00 % within 100.0 New 8.2% 4.3% 4.3% 7.6% 3.8% 10.3% 12.5% 20.1% 26.1% GPA_New % 72 Count 0 9 0 2 15 12 18 14 4.00 % within 100.0 0.0% 12.5% 1.4% 0.0% 2.8% 20.8% 16.7% 25.0% GPA_New 307 Count Total % within 100.0 2.0% 10.7% 2.9% 3.6% 5.2% 4.6% 12.1% 13.0% 21.2% 24.8% GPA New

APPENDIX C: CHI-SQUARE TESTS

Chi-Square 4 Friends participate in similar activity interests(GPA)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	11.620ª	12	.477
Likelihood Ratio	10.860	12	.541
Linear-by-Linear Association	2.450	1	.118
N of Valid Cases	307		

Chi-Square <u>4 Friends</u> participate in similar activity interests Crosstabulation (Race)

	Value df &		Asymp. Sig. (2-
			sided)
Pearson Chi-Square	3.125ª	6	.793
Likelihood Ratio	3.036	6	.804
Linear-by-Linear Association	1.061	1	.303
N of Valid Cases	308		

Chi-Square 4 Friends participate in similar activity interests(sex)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	9.360a	12	.672
Likelihood Ratio	11.246	12	.508
Linear-by-Linear Association	.154	1	.695
N of Valid Cases	308		

Chi-Square 6 Fun and/or stress reliever (GPA)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	8.860ª	12	.715
Likelihood Ratio	9.056	12	.698
Linear-by-Linear Association	1.126	1	.289
N of Valid Cases	307		

Chi-Square 6 Fun and/or stress reliever (Race)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	5.939ª	6	.430
Likelihood Ratio	6.049	6	.418
Linear-by-Linear Association	.118	1	.732
N of Valid Cases	308		

Chi-Square 6 Fun and/or stress reliever (Sex)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	16.733ª	12	.160
Likelihood Ratio	16.597	12	.165
Linear-by-Linear Association	.206	1	.650
N of Valid Cases	308		

Chi-Square <u>2 Positive</u> association with varsity athletes (mentoring and/or success) (GPA)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	16.712ª	12	.161
Likelihood Ratio	19.867	12	.070
Linear-by-Linear Association	3.055	1	.080
N of Valid Cases	307		

Chi-Square Positive association with varsity athletes (mentoring and/or success) (Race)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	1.592ª	6	.953
Likelihood Ratio	1.661	6	.948
Linear-by-Linear Association	.042	1	.839
N of Valid Cases	308		

Chi-Square Positive association with varsity athletes (mentoring and/or success) (Sex)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	9.100a	12	.694
Likelihood Ratio	9.667	12	.645
Linear-by-Linear Association	.419	1	.517
N of Valid Cases	308		

Chi-Square 3 Competition (GPA)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	8.987ª	12	.704
Likelihood Ratio	9.091	12	.695
Linear-by-Linear Association	.005	1	.942
N of Valid Cases	307		

Chi-Square 3 Competition (Race)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	3.826ª	6	.700
Likelihood Ratio	3.891	6	.691
Linear-by-Linear Association	1.186	1	.276
N of Valid Cases	308		

Chi-Square 3 Competition (Sex)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	14.574ª	12	.266
Likelihood Ratio	16.979	12	.150
Linear-by-Linear Association	2.077	1	.150
N of Valid Cases	308		

Chi-Square Time (GPA)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	27.797ª	18	.065
Likelihood Ratio	29.699	18	.040
N of Valid Cases	307		

Chi-Square Time (Race)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	8.575ª	9	.477
Likelihood Ratio	7.840	9	.550
N of Valid Cases	308		

Chi-Square Time (Sex)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	28.146ª	18	.060
Likelihood Ratio	30.565	18	.032
N of Valid Cases	308		

Chi-Square 2 Ability to get to and from facility (GPA)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	18.696ª	18	.411
Likelihood Ratio	21.081	18	.275
N of Valid Cases	307		

Chi-Square 2 Ability to get to and from facility (Race)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	6.695ª	9	.669
Likelihood Ratio	7.394	9	.596
N of Valid Cases	308		

Chi-Square 2 Ability to get to and from facility (Sex)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	26.255ª	18	.094
Likelihood Ratio	25.124	18	.122
N of Valid Cases	308		

Chi-Square 10 COVID (GPA)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	24.116ª	18	.151
Likelihood Ratio	26.924	18	.080
N of Valid Cases	307		

Chi-Square 10 COVID (Race)

	Value	<u>df</u>	Asymp. Sig. (2-		
			sided)		
Pearson Chi-Square	9.575ª	9	.386		
Likelihood Ratio	9.316	9	.409		
N of Valid Cases	308				

Chi-Square 10 COVID (Sex)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	15.530ª	18	.625
Likelihood Ratio	15.682	18	.615
N of Valid Cases	308		

Chi-Square 9 Parental Influence (GPA)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	31.040ª	18	.028
Likelihood Ratio	35.846	18	.007
N of Valid Cases	307		

Chi-Square 9 Parental Influence (Race)

	Value	<u>df</u>	Asymp. Sig. (2-		
			sided)		
Pearson Chi-Square	7.321ª	9	.604		
Likelihood Ratio	7.632	9	.572		
N of Valid Cases	308				

Chi-Square 9 Parental Influence (Sex)

	Value	<u>df</u>	Asymp. Sig. (2-
			sided)
Pearson Chi-Square	17.352ª	18	.499
Likelihood Ratio	17.498	18	.489
N of Valid Cases	308		

APPENDIX D: DESCRIPTIVE STATISTICS (FACILITATORS & BARRIERS FOR

TARGETED POPULATIONS)

Descriptive Statistics (weighted mean – barriers)

	N	Minimum	Maximum	Mean	Std.
					Deviation
Ability to get to and from facility (no ride	81	1	9	4.01	2.487
I am committed to one sport therefore do not seek multiple sport/activity opportunities and/or alternative physical activity opportunity	81	1	10	6.17	2.257
Personal Health (physically unable)	81	1	10	5.89	2.345
Time (work and/or homework and/or watching siblings and/or other responsibilities)	81	1	10	3.69	2.223
Ability to access facility (are other programs using the facility - therefore I don't have as much of an opportunity as I would like)	81	1	9	4.30	1.874
Cost	81	1	10	4.52	3.139
COVID	81	1	10	8.47	2.665
Parental Influence: I align my priorities similar to my <u>parents</u> interests which does not typically involve physical activity	81	1	10	7.40	2.463
Preferred recreation includes: TV, Device, Gaming, Computer, etc.	81	1	10	5.86	2.696
Social Influence (bullying and/or my friends do not participate - therefore I have no interest)	81	1	10	4.69	2.458
Valid N (listwise)	81				

Descriptive Statistics (weighted mean - facilitators)

	N	Minimum	Maximum	Mean	Std. Deviation
Competition	60	1	7	3.57	1.925
Friends participate in similar	60	1	7	4.03	1.737
activity interests	00	'	,	4.00	1.757
Positive association with	60	1	7	3.57	1.890
coach	00	'	′		1.030
Positive association with					
varsity athletes (mentoring	60	1	7	4.58	1.720
and/or success)					
Fun and/or stress reliever	60	1	7	4.13	2.251
Individual skill success	60	1	7	3.45	1.836
Personal Health (I know this					
is good for me and my	60	1	7	4.67	2.297
health)					
Valid N (listwise)	60				



Overcoming Barriers that Influence Adolescent Participation within Extracurricular Recreation Activity Events

Paul Haas Michael Hemphill Justin Harmon Ben Dyson



Extracurricular Physical Activity Among Youth is in Steady Decline! 5 year study from 2008 to 2013. Estimated

Participation Youth Bball&Sball

1189 1173 1126 1076 966 917 856 821

2015 2016 2017 2018 2019 2020 2021 2022

- 5 year study from 2008 to 2013. Estimated 2.6 million fewer kids aged 6 to 12 were participating in youth sports within the US (Sport fix All, n.d.).
- 60% of adolescents aged 15 years old, have decreased physical activity time compared to when they were 11 tental (1000).
- Locally, 2015 nearly 1200 youth baseball and softball players participated in PWYA. 2022 is down to just over 800_(Perner, 2022).
- Estimated nearly 80% of adolescents worldwide are not meeting PA recommendations(Hallal et al., 2012).



What Might Be Causing a Decrease in Community Rec Participation?

- Sport Specialization
 - Burn-0ut, limited variety of skill development
- · Socioeconomic Status
 - Equipment, registration, resources for travel
- Parental/Social Influence
 - 2 lenses
 - · Ideologies/interests or responsibility
- · Digital Media
 - · Access to personal device
- COVID
 - · Reduced facility accessibility
 - Increased stress and anxiety, potentially correlated with reduced PA participation



Community & School Sport & Recreation is the Answer





Purpose

Data shows a decline in participation numbers; however, limited data is available as to why. We must identify the factors that are beneficial while also those which are hindering participation in physical activity among adolescents.

Facilitators

Identify facilitators to adolescents' participation in activity

Identify barriers to adolescents' participation in activity

We cannot provide intervention to the problem - until we figure out what the problem is specifically



- · Focus Groups:
 - · Acquire school district and parental permission
 - 4 groups. 10 ninth graders for each group. 2 groups per middle school.
 - Focus questions will help complete a survey that will be distributed to the rest of the ninth graders within the two participating schools, and provide meaningful citation to further demonstrate importance.

Methods

- · Guided Focus Group Questions are as follows:
- What key benefits does an increase in physical activity participation have on your overall health? Describe your physical activity participation. How much time do you dedicate to physical activity outside of school hours?

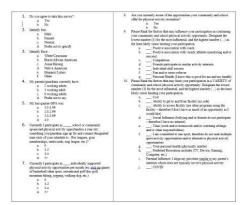
 What influences the amount of physical activity you rearticipate in?
- participate in?
 O Start with suggestions that increase participation.
 Is there anything that stands out to limit your
- participation?
 If you could offer suggestions to your coaches, administrators, or facility directors to enhance your preferred activity area, what would you suggest?



Methods Cont.

Survey:

Distributed to all ninthgrade students (with parental permission) Offering conclusive evidence of suspected facilitators and barriers identified by a larger sample population Data will be entered into SPSS software





Analysis

- Data from Focus Groups (transcription):
 - Round out survey
 - Help support (personal citations) the emphasis of importance within survey results
- Data from Surveys (SPSS):
 - Identify the most significant factors influencing participation.
 - · Descriptive Statistics
 - Chi-square test
 - Do factors differentiate among ethnicity, gender, academic association, other various factors?



Results

- Influencers:
 - PA students want to have fun, play with friends.
 - They do not want an emphasis on competition and success of varsity athletes is not important.
- Barriers:
 - Time and accessibility (specifically transportation) are most important
 - Students do not care about COVID nor what their parents influence

"It is a good idea to ask kids what they like to do. We have our own opinions on what we should be doing in a gym, because then, if you have those options, we are doing things we like, and not being forced to do something we don't like."



Thank You

Paul Haas pehaas@uncg.edu 715.781.1711

Any Questions?



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3 Find your way here

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