



The Benefits of Team Sports on Mental Health

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INTRODUCTION

Mental Health in Gen Z

Compared to millennials and previous generations, Generation Z (Gen Z) has had a significant and concerning increase in mental health diagnoses (Akbar, 2024; Botha et al., 2023; Haidt, 2024; Konstantinou, 2023; Vacchiano, 2023). According to author and social psychologist Jonathan Haidt (2024), college students have experienced a 134% increase in anxiety and a 106% increase in depression since 2010. These mental illnesses can affect the students' personal relationships and academic performances because it causes them to be constantly in distress (Owens, 2012; Zheng, 2023). The effects of such conditions also add to the already high suicidal tendencies within teenagers, where suicide attempts, serious suicide ideation, and passive suicide ideation reach 6.7%, 9.8%, and 22.2%, respectively (Orri, 2020). This is one of many reasons to find a simple and effective approach to addressing mental illness.

As the world transitioned into a global crisis due to the COVID-19 pandemic, everyone was affected in various ways as well as varying severity. However, Gen Z had to deal with the external pressure of keeping up with school on top of having to quarantine. As the primary form of education had to adapt due to the pandemic, schools had to shift from in-person lectures to completely remote, which led to students being deprived from necessary social interactions and genuine connections outside of a screen (Cockerham et al., 2021). This may have been a contributor to increased suicide casualties within Gen Z, reflecting how much the lack of social engagement and additional stress can play a role in mental health (Goto et al., 2022).

Despite a general decline in mental health nationwide, the impact appears to be most severe among Gen Z, as they experienced almost three times the rates of increased anxiety compared to Generation X (Gen Z: born 1997-2012; Millennials: born 1981-1996) (Dimock, 2019; Haidt, 2024). Researchers, educators, and mental health providers have suggested that Gen Z is more anxious because they've grown up in a time of greater global, political, and economic uncertainty. To relieve this stress, the generation naturally turns to community, a safe place where they can be understood and supported. Many communities today are formed through sports and teams, where fans and players create connections and bond over competition, wins, and losses. Sport culture is either self created or taken from traditions and history (Breivik, 2022), so whether watching a game or playing in one, these shared experiences can combat isolation and serve as a source of comfort.

Sports Changing Over Time

Across the globe, team sports are becoming even more popular than a few generations ago. For example, we see a higher number of viewers for female team sports. In 2018, the record for women's club soccer attendance was broken at the finale of the 16-team Liga MX Femenil when there were 51,211 attendees (Sports, 2018). Furthermore, more athletes are starting to recognize the impact that mental health concerns can have on both performance and personal relationships, particularly at the college level, where the pressure to excel can be overwhelming and lead to declines in mood and athletic output (Beebe, 2023). This rise in interest in team sports, along with more open conversations surrounding mental health,

demonstrates the crucial role a team can play as a support system; however, there are still external factors that can affect this relationship.

Current Study

Through a review of prior literature, this paper examines the mental health benefits of participating in team sports versus individual sports, and how various moderating factors may influence the strength and direction of this relationship. For instance, an athlete's socioeconomic environment and family pressure can play a significant role. Relationships with coaches, teammates, and even classmates can significantly impact how supported and stressed an athlete may feel, and the stress placed on them by parents can add an unnecessary burden and increase the risk of burnout (Aunola, 2018). The extent of positive impact a child experiences may also vary depending on whether they live in single-parent families, blended families, or other non-traditional households, as well as the families' sport culture and if the child has had ACEs (Adverse Childhood Experiences) (Easterlin et al., 2019). The findings presented in this current paper are based on a review of research exploring how these factors interact and influence mental health outcomes.

FINDINGS FROM THE LITERATURE REVIEW

Team Sports Boost Social and Mental Strength

As a child athlete, a defining aspect in the dynamic of competition is whether you work with a group toward one goal or compete directly with other athletes. Playing with teammates gives adolescents the opportunity to build collaboration skills and contribute to a win (Sabiston et al., 2016), whereas individual sports focus on personal wins and losses. From team interactions, adolescents grow a sense of acceptance and support, which plays a role in managing depressive symptoms and fostering balanced relationships with peers and adults (Eime et al., 2013; Boone and Leadbeater, 2006). Boone and Leadbeater (2006) suggest that adolescents on teams, who are supported by coaching, create relationships with their peers, and have skill development, tend to have decreased body dissatisfaction, more feelings of social acceptance, and fewer depressive symptoms. This is in part explained by hippocampal volume, a region of the brain that is connected to depression, which interactive and social sports can predict (Gorham, Jernigan, Hudziak, & Barch, 2019).

Team sports can also encourage young athletes to combat unhealthy habits. In a meta-analysis by Zuckerman et al. (2020), one-third of the behavioral studies reviewed reported decreased rates of tobacco and cigarette use among youth who participated in team sports, while nearly half found reduced alcohol and drug use. 12 of the 15 studies even reported improvements in behavioral health. Additionally, 7 out of 10 studies on social behavior found that team sports helped improve both mental and social well-being. Participating specifically in a team sport or sports club gives athletes the opportunity to form social connections, contributing to outcomes such as social networking, higher self esteem, and a sense of belonging (Andersen et al., 2018; Tahira, 2022). This can lead to social and psychological support, especially because motivated coaches can help teens and offer mental health support (Tahira, 2022). These benefits are especially important for Gen Z, who are often less likely to seek help for mental health issues. Positive peer support and coaching in team sports can therefore have an indirect but meaningful impact on mental well-being (Panza et al., 2020; Tahira, 2022). These advantages of team sports are independent of preexisting somatic and mental health problems,

making them more generalizable to athletes in various conditions (Andersen et al., 2018). These benefits support the idea that collaboration in organized sports promotes positive development by shaping social skills and encouraging healthy behaviors.

The benefits of team sports, however, are not limited to adolescents. Those who continue participating in team sports after adolescence experience less stress and better coping levels than those who stop participation (Murray et al., 2021). Individuals who remain active in sports are less likely to develop panic disorders, and they also typically report lower levels of depressive symptoms than those who dropped out of sports (Murray et al., 2021; Eather et al., 2023). Consistent involvement in team sports during adolescence is even correlated with higher self-rated mental health in young adulthood (Eather et al., 2023). As an adult, group physical activities and sports are also linked to greater health-based quality of life and more frequent laughter. Furthermore, being physically active is associated with a lower risk of developing cognitive impairment (U.S. Department of Health and Human Services, 2018). Ultimately, although team sports may be a simple way to promote health, participating in them should not stop at a young age.

These positive outcomes don't always carry over to individual sports. In the transition from youth to adulthood, team sports and informal group activities are more effective in reducing depressive symptoms and encouraging psychological well being than individual physical activity (Doré, 2018). A cross-sectional study of Australian women reported that women active in team and club sports had reported better life satisfaction than those not involved (Eime et al., 2014). This may be due to a variety of factors, one being the presence of a support system and motivation provided by teammates (Eather et al., 2023). Teammates often motivate one another to work harder or be involved in events or programs off the field, providing a sense of belonging and identity. Without them, there may be a lack of support and accountability when not actively training or playing, reducing potential positive psychological effects from playing a sport. In addition, team sports give an athlete a certain responsibility to help the team succeed.

In a large study of over 11,000 children and adolescents from the US, Hoffmann et al. (2022) found that exclusive involvement in individual sports, compared to no sport participation at all, corresponded with higher levels of psychological issues. Individual sport participation was associated with over 10% higher scores in symptoms such as anxiety, depression, social difficulties, withdrawal, and attention problems. These alarming statistics may be attributed to a higher stress associated with performing autonomously, enhanced self awareness, and pressure from wanting to win in front of a supportive audience. The children likely realize the expectations set on them by coaches and family, but they do not have teammates to share the blame for losing or a poor performance. Furthermore, individual sport athletes are more susceptible to social physique anxiety, or fear of judgement by others based on their outward appearance. This may be attributed to athletes in body-focused individual sports such as ballet or dance.

Knowing this, individual athletes may feel a larger responsibility to bring home wins and perform, increasing the likelihood for mental health problems like depression (Nixdorf et al., 2016). Following failure, they are more likely to suffer from internal attribution and may be excessively fixated on outcomes from bearing the weight of loss alone. One result of this mindset that is most commonly seen in individual sport athletes could be the athlete playing for goal oriented reasons, wanting success as merely a reward for outperforming others instead of enjoying it (Pluhar et al., 2019). Conversely, team sport athletes are more likely to play for fun, as the social aspect and team engagement team sports provide can help reduce stress and

burnout. This is necessary for Gen Z as stress levels increase from academic stress and a competitive job market, making depression even more prevalent and concerning among young individuals (Konstantinou, 2023).

The contrasting mental and social dynamics when participating in team and individual sports exemplifies the unique environment found in team sports—one that fosters strong connections, healthy habits, and a more stable mental well-being.

Movement and Mental Wellness

While the collaborative nature of team sports offers unique social and emotional benefits, it's also important to consider the broader role that physical activity itself plays in supporting mental health. Beyond the dynamics of teamwork, simply moving the body—whether through organized sports, exercise, or recreational activity—has been consistently linked to improvements in emotional well-being and reductions in mental health symptoms. The following section explores how physical activity, regardless of sport type, impacts brain chemistry, stress regulation, and overall psychological health.

There is a strong inverse correlation between physical activity engagement through childhood and adolescence and the prevalence of negative mental health symptoms and diagnoses (Biddle et al., 2004). A meta-analysis discussing this topic evaluated how physical activity and sedentary behavior affect mental health in preschoolers, children, and adolescents (Rodriguez-Ayllon, 2019). When data from 12 experiments were combined, the relationship between physical activity engagement and greater psychological well-being and lower psychological ill-being was identified as small, but significant. A secondary analysis found that the significance was driven by adolescents aged 12-18 years. These findings suggest that decreasing sedentary behavior and enhancing physical activity engagement may promote mental well-being, especially within adolescents.

Further research reveals that opioid serum concentrations in the brain increase from exercise and are related to a variety of psychological and physiological alterations, including altered pain perception, exercise-induced euphoria, hormonal stress responses, even mood changes (Harber & Sutton, 1984). A hypothesis even claims that each skeletal muscle contraction during sustained rhythmic exercise causes an increase in the discharge of group III or A-delta mechanosensitive afferent nerve fibers. From the changes of the nerve fibers, the central opioid system is activated, playing a possible role in decreasing various disorders: anxiety, depression, bulimia, anorexia nervosa, alcoholism, and other addictions (Thoren et al., 1990). This relationship demonstrates the notable benefits movement can have on the mind.

Moderating Factors that Impact Sport Benefits

Several factors moderate the benefits of sports participation and movement described above. This section will review three key factors - socioeconomic, family, and adverse childhood experiences - and how they influence adolescents' involvement in sports and their overall experience.

Socioeconomic Challenges

In a study by Holt et al. (2011) that examined children and parents in low-income families' views of the benefits of team sports participation, 35 individuals from 17 low-income families were interviewed. The researchers found that many social and personal rewards are associated

with team participation, such as emotional control, discipline, and weight management. One child in the study responded with many favorable outcomes he experienced from playing sports:

“There’s making new friends. The whole thing of making new friends, meeting new people. And I think, it’s a great way to help kids mature almost, to deal with the emotions and deal with people around them ‘cause these situations that they’re put in, I think it would really help them develop. And of course there’s that other skill of interaction that everyone needs. And of course I think it’s fun. That’s the main reason that I play volleyball. And I think also that it’s a good stress relief and if you’re like busy with school and other things, I think it’s a great way, sports help like get more, like I almost feel like I work more efficiently if I play sports even though it takes a part of my time. Almost like doing my homework more efficiently if I have less time almost to manage my time. And if you’re physically active it almost helps your brain to be more clear.”

Although children can experience these benefits from sports participation, some families experience barriers preventing them from reaping these advantages (Tandon et al., 2021). Socioeconomic status is one of these primary factors. For example, a parent in the Holt et al. (2011) study reported this experience by saying:

“That’s why we were very, very busy so we just didn’t have any time. It’s ongoing project, one after another and there is no spare time at all. So, our son has to adjust to our schedules unfortunately because we can’t change it and I can’t help it. I have three jobs at the same time because we have to pay our bills and I have to support my family here.”

Struggles and limited time caused by socioeconomic factors are among many things that may limit the benefits of participating in team sports for children (Holt et al., 2011; Langøy et al., 2019). As a result, extra support should be provided to families whose children may otherwise not be able to participate in these activities. Resources for expanding access to team athletics may be found in Finkelstein et al. (2017). But even when a child is able to participate, family is a factor that may shape it.

Family

While finances and time may limit access to team sports, dynamics between family members and attitudes toward sports at home also shape how much youth gain from participation (Strandbu et al., 2020). For teens, one crucial component is family sport culture. These attitudes can paint sports as a natural part of life, and through family activities, they can encourage an active lifestyle. Often, children participate in sports because of community factors; it is expected, common, and valued. On the other hand, we would expect teenagers’ participation to be dependent on family sport culture because lifestyles and habits from a young age continue to be influential in late teenage years, suggesting that family sport culture is more defining for older adolescents than younger children. Also, parental support may be more important as sport becomes more serious and costly in higher age groups. It is important to note that those who continue to play sports into their late teens rather than quitting may also shift family sport culture to be stronger. Moreover, Strandbu et al. (2020) noted that parents

themselves can shape their children's sports-related lifestyles in many ways: introducing their children to sport, being role models, encouraging participation, providing equipment and transportation, and by their overall interest in sport or physical activity. This is especially important because without support from parents, children are less likely to participate and experience the social and mental perks from team activity.

Although support from parents is a large factor in how their children receive psychological benefits from group sport participation, family structure is also influential. Research suggests that youth from single-parent or blended families may be less likely to engage in physical activity or team sports than those who live with both biological parents (Langøy et al., 2019). A study examining Norwegian youth found that people are even becoming more concerned that youth from single-parent families might be less likely to meet physical activity recommendations, as they face a higher risk of getting less than 60 minutes of exercise daily (Langøy et al., 2019). On the other hand, youth who reported having high or low material affluence were less likely to participate in organized sports. Interestingly, one study found that inactive behavior was lower among step-parent families than single-parent families (Quarmby et al., 2011). These results may be due to less parental support from single parents resulting from a lack of flexibility and increased responsibilities, which matters especially since young people often rely on their parents for transportation. Children in reconstructed families may also spend time visiting non-resident biological parents, which may limit their availability and participation.

The presence or absence of siblings may also influence physical activity (Bagley, 2006). In single parent families, there was an insignificant change when a sibling was present, but in two parent families, girls who had a sibling were more active. Generally, girls without a sibling spent 17 minutes less in physical activity, which is over one fourth of the minimum recommended physical activity time (60 minutes) for adolescents and children. On the other hand, boys with a brother in single-parent families spent more time in daily movement. These examples show that participation in team sports is not solely about wanting to become an athlete—family life plays an important role as well.

Adverse Childhood Experiences

In addition, Adverse Childhood Experiences (ACEs) may play a factor in likelihood of participation in team sports (Easterlin et al., 2019). These experiences are potentially traumatic events that occur any time from 0-17 years old, or negative aspects of their growing environment that threatens their sense of stability and safety (Merrick et al., 2019). ACEs are typically associated with mental health diagnoses due to disruption in the adaptive emotion regulation processes (Sheffler, 2020). However, there is seen to be an inverse relationship between participation in team sports among children with ACEs and diagnoses of depression, anxiety, and current depressive symptoms (Easterlin et al., 2019). This is not the same for other school-based activities, and is not related to the number of sports played. Knowing that children with ACEs experience unique benefits from team sports compared to other traditional activities, it is important to make them accessible, regardless of background experience or skill. Prioritizing adolescents with difficult childhood experiences could help close the gap in teens' mental health. Coaches should provide a safe and encouraging environment that values safety, not just competition, and be able to recognize the impact of trauma. Making team sports welcoming to all children is crucial to long term change.

A six-month study observing 283 socially vulnerable youths wanted to examine the relationship between youth developmental outcomes (prosocial behavior, wellbeing, sense of

coherence, etc.) and sports participation (Super et al., 2018). It was revealed that those with high sport participation scored higher than non-sport participants on a questionnaire assessing prosocial behavior (e.g.: helping someone who is hurt or ill). Specifically, prosocial behavior is positive social actions that are learned through continuous social interaction (Li & Shao, 2022), which may be harder for socially disadvantaged kids to experience. These behaviors facilitate healthy interactions and relationships with others as youth because they learn how to respond with empathy, communicate with support, and behave cooperatively (Li & Shao, 2022). Therefore, the increase in prosocial behavior from social interaction through sport participation fosters increased activity levels, a higher sense of purpose, and better moral development. Non-sport participants also scored lower than moderate participants on sense of coherence, and higher involvement in sports ultimately correlated with subjective well-being (Super et al., 2018). Overall, despite experiencing social exclusion, family instability, or economic struggle, teens generally demonstrate significant benefits from sport participation, suggesting that the extent of those advantages may be influenced by surrounding social circumstances.

Potential Limitations to Research Findings

Although these benefits apply to both boys and girls, it is important to note that boys, athletes with fewer mental health symptoms, and those of normal weight typically are more involved in team sports, which may influence the perceived relationship between team sports and mental health (Heradstveit, 2020; Slater & Tiggemann, 2011). Furthermore, some studies showing a stronger negative correlation between participation in organized sports and anxiety had a higher male population, and it is known that girls are naturally more prone to anxiety (Panza et al., 2020; Merikangas et al., 2010). Some data is also self-reported, which may introduce bias. Despite these limitations, the overall body of evidence consistently supports a positive relationship between team sports participation and mental health benefits, highlighting the importance of continued research that includes diverse populations and objective measures.

CONCLUSION

In summary, we see a positive relationship between participation in team sports and mental health. This correlation is especially important to note in Gen Z because of the high rates of anxiety, depression, and suicidal symptoms within the young age group compared to previous generations. COVID-19 was one of the main contributors to these trends, requiring schools to switch to online learning. The pandemic caused a decline in necessary social engagement and an increase in screen time, hindering crucial learning and growth within adolescents both academically and socially. As this generation navigates schooling, jobs, and personal relationships, community is essential for social growth—and team sports are a great example. Having teammates and a coach to rely on not only encourages physical activity that can improve pain perception and reduce stress, but also promotes collaboration, emotional intelligence, and the reduction of mental health diagnoses. Having a supportive environment is an overall necessary factor in growth, so we found that individual sports may have the opposite effect; individual athletes typically have an internal attribution to losses, a goal oriented approach, and carry the emotional weight of loss alone. Socioeconomic factors may limit children and adolescent accessibility to sport participation due to time restraints, economic limitations, and the challenges of living in a single-parent household. A restructured family can also alter how an athlete receives psychological benefits from team sport participation.



Further research could explore gender-specific psychological outcomes of team sports, as well as how different coaching styles, including ACE-informed coaching, may influence outcomes. Researchers should also consider examining how co-sibling participation affects mental health. To maximize the developmental and psychological gains team sports provide students, schools should encourage greater participation and inform parents about these benefits. Coaches should also be informed about the significant value of team activities and the need for children to participate and be surrounded by a supportive environment. By doing so, more children can build meaningful communities, form strong connections, and develop long-term mental health strengths.

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