SUICIDE IN YOUNG ATHLETES

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ABSTRACT

Sports participation by children and adolescents is considered a rite of passage in the contemporary American society. Over the past several years there has been a fundamental shift from playing for fun to playing for some other goals, using sport as a means to get there. Although the benefits of sports participation have been well acknowledged, it is also important to consider that for some athletes sport participation can be very stressful and may lead to psychosocial problems including depression and suicidal behavior. This chapter reviews the relationship between sport participation and the risk for suicidal behavior with theoretical and clinical perspectives.

INTRODUCTION

In relation to suicide and sport participation, main considerations are whether young athletes are at an increased or reduced risk for suicide because of their sport participation, and is it possible to predict or identify athletes at risk for suicide. Epidemiological studies show that suicide is the third leading cause of death among 10-24 year old in the United States and a previous attempt is the strongest indicator of suicide (1-3). At the outset it is important to acknowledge the lifelong benefits of regular physical activities, and for children and adolescents physical activity within the context of sport participation. Youth sport participation can contribute to overall psychosocial development in a number of ways, some of which include the following:

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- Improves self-esteem, self-perception, self-confidence
- Enhances personal coping abilities
- Increases motivation
- Provides opportunity for self-evaluation and social comparison
- Enhances social competence
- Provides socialization experiences for the athletes and family
- Provides experience in dealing with authority
- Fosters competitiveness, teamwork
- Fosters independence
- Teaches sportsmanship and fair play

Taliaferro et al. (4) investigated the relationship between physical activity, sport participation, and adolescent suicidal behavior based on data from the 2005 Centers for Disease Control and Prevention Youth Risk Behavior Survey. Their analysis showed that of the 13,857 adolescents, 16.9% had seriously considered attempting suicide, 13.3% had made a suicide plan, 9% had attempted suicide, and 4.2% had attempted suicide multiple times. Close to 80% had engaged in physical activity at least once per week and 54% had participated in sports.

Taliaferro et al. (4) found significantly lower rates of hopelessness and suicidality among male and female athletes, compared to their nonathletic counterparts; a significant relationship between frequent, vigorous activity and reduce risk of hopelessness and suicidality among male adolescents; low level of physical activity with a higher level of hopelessness and suicidality among females; females engaged in weight loss activity were at a higher risk for suicidality; and for both males and females sport participation was associated with a decreased risk of hopelessness and suicidality (4). Taliaferro et al. (4) suggested that mechanisms other than physical activity possibly contribute to a lower risk for suicide in athletes (4). The two very important such protective mechanisms are purported to be social support and social integration that is facilitated by the milieu of sport participation (4).

Sabo et al. (3) looked at the relationship between high school athletic participation and adolescent suicide in a nationally representative sample of 16,000 US high school students (3). They found that: participation in sports reduced the odds of considering suicide; participation was associated with higher rates of injury to male athletes who attempted suicide; Participation associated with higher rates of injury to male athletes who attempted suicide; For both genders, athletes will be less likely than their non-athlete counterparts to consider, plan and attempt suicide; For both genders, higher degrees of athletic participation will be associated with reduced risk for suicidality; Among male adolescents who attempt suicide, athletes will be at greater risk for resultant injury than non-athletes and female athlete counterparts.

**THEORETICAL CONSTRUCTS OF SPORTS AND SUICIDE**

Sabo et al. (3) have posited that the theoretical constructs of classical sociological thought, the control theory and the cultural resource theory may partly explain the social, psychological, and physiological mechanisms, especially relative to gender, by which sport participation can
influence the risk for suicide (3, 5, 8). The classical sociological thought described by Durkheim (5) considered the reduced risk for suicide in athletes based on the influence of social network around organized youth sport allowing a greater degree of integration of athlete socially (5). Such an environment also allows for development of an athletic identity and adoption of team values and goals by the athlete. On the other hand, as the gap between what is expected by society of the athletes and his or her means to attain these goals widen, risk of suicide may increase (3, 5).

Control theory as described by Hirschi (8) considered the influence of strong social bonds that develop during sport participation in reducing individual deviance in behaviors (1, 5). It is believed that in general sport participation promotes the development of social bonds within the institutional context and is also modulated by the athlete’s adoption of inner and outer controls. Sport participation is also associated with athlete’s attachment to influential others and reinforcement of conventional beliefs and values (5). Once the athlete has committee to the sport, he or she has something valuable to lose. It is further postulated that sport participation may be related to a set of multifaceted institutional processes in which the young athletes develop identity, cultural scripts for social behavior, and build personal and social resources (3, 5).

The cultural resource theory is another theoretical construct that is considered in understanding the variation in suicidal behaviors among adolescent athletes (3, 5, 8). It is believed that the development of personal and social resources that occur within the context of sport participation has a protective effect against suicide. Participation in sports is highly valued by most athletes and their school officials. It has been shown that students who participate in sports are also more likely to be involved in other community based activities. Sport participation has also been shown to be associated with development of self-efficacy, gender identity, social acceptance and leadership skills. Sport participation also elevates athlete’s social status among peers and allows for more social integration, both associated with reduced suicide risk (1, 3, 5).

Baum (9), in a review of the medical literature from 1966 to 2000 on suicide in athletes found 71 athletes who had either contemplated, attempted, or completed suicide (9). Of the 71 cases, 66 had competed suicide. The average age among the 71 cases was 23.3 years, 61 were males, and 10 females.

Most athletes who committed suicide were football players; followed by athletes who participated in basketball, swimming, track and field, and baseball (9).

Baum (9) identified several possible risk factors for suicide in athletes. These include injury, psychosocial stressors, the pressure to win, substance abuse, retirement, underlying psychopathology or psychiatric disorder, anabolic steroid use, family history of suicide, homosexuality, cultural factors, and firearm ownership (9).

**SPORT-INJURY AND SUICIDE RISK**

The inability to continue sport participation because of injury is known to cause significant distress in athletes (1, 11). In an important case series analysis Smith and Milliner identified specific risk factors for suicide in injured athletes: considerable success before sustaining injury, a serious injury requiring surgery; a long, arduous rehabilitation with restriction from
their preferred sport; a lack of preinjury competence on return to sport; and being replaced in their positions by teammates (10). It is not entirely clear what increases the suicide risk for the injured athlete; however, it is theorized that the inability to experience the fun, competition, and camaraderie of sport participation; and the inability to express sexual, aggressive, and narcissistic drives may contribute to post injury depression and a higher suicide risk.

Long-term neurological effects from sport-related concussions are a significant concern, especially in young athletes (1). Although, post-concussive syndrome is often associated with behavioral problems such as aggression and mood changes, there is no clear evidence that links concussion to increased risk for suicide in athletes.

The psychological response to injury depends on many factors such as the emotional maturity of the child or adolescent, severity and type of injury, the extent to which it will limit participation at present or in the future, individual pain tolerance, ability to cope, personal motivation, one’s place on the team, seasonal timing, context of the injury, and support from family and others (1).

The vast majority of young children and adolescents cope well with injury and the inability to play, since they hope that their injury will heal and they will be able to resume sport participation. Some athletes may cherish the special attention given to them during rehabilitation. They may take pride in having a cast signed by friends. A few will find it difficult to adjust and may manifest anger, frustration and a depressed mood following injury. Late adolescent athletes in highly competitive or elite level sports may go thorough emotional stages similar to other loss, beginning with disbelief, denial and isolation; followed in succession by anger; bargaining; depression; and acceptance and resignation. Fortunately, for most children and adolescents the progression from denial to recovery is of short duration. A few athletes may manifest multiple somatic symptoms and do not recover as expected. In these athletes further assessment is indicated to find complicating factors such as underlying depression, fear and anxiety, secondary gain, or conflicts with parents.

Management of parental anxiety can be even more challenging. Parents should be helped to understand the implications of injury on future sport participation and the emotional reactions of the athlete. Pediatricians play an important role in helping an athlete and parents during this period by recognizing potential problems, having realistic expectations, and not yielding to external pressures to return athlete prematurely to sports, in the best interests of an athlete. A clinician may also consult a psychologist who can help the athlete with an number of cognitive-behavioral techniques during the rehabilitation process.

**Clinical Considerations**

In order to understand the clinical implications of the psychosocial impact of sports participation in children and adolescents it is useful to understand what motivates them to participate in sports in the first place (11).

The positive or negative outcomes from sport participation in athletes do not occur in isolation and therefore any clinical approach should involve broad based psychosocial screening.
What are some of the reasons children and adolescent play sports? An athlete’s attitudes, personality, and personal motivation play central roles in sports participation. Many individual factors (cognitive and physical maturity, importance of success in sports) and environmental factors (rewards from sports, type of sport, sociocultural factors, coaching style) influence individual motivation (1). Some athletes are primarily motivated to improve personal sport skills and to do their personal best (intrinsically or mastery oriented); others are motivated to excel in comparison to peers (extrinsically or outcome-oriented) (11). Mastery oriented athletes enjoy playing the sport and for them, success is personal improvement and the effort itself (11). For outcome oriented athletes, success mean winning the game and thus a loss can be difficult to tolerate (11).

Many youth have unrealistic expectations from sports. Studies suggest that in middle and high many students, especially boys, intend (dream) to become professional athletes (1). Their reasons to pursue professional athletics in the future were the “rewards” of athletic participation such as money, social status, and praise from others, independence, and the admiration of women. It was not for the “fun” of sports. However, the vast majority of children and youth, the most common reason to participate in sport is to have fun and be with friends. Motivation and reasons to be involved in sport also vary depending up on the age and developmental stage of the child. Young children tend to focus on having fun and being with friends, while adolescents may want to achieve status among peers, or “impress” others.

Many athletes quit playing sports for various reason (1). Attrition refers to those who drop out of a sport before the season officially ends. Studies suggest that attrition from youth sports generally begin by 10, and peak at 14-15 years. Highest rates of early drop out are noted in gymnastics and the least in football. Fifty percent of sports participants may drop out by the time they reach early adolescence. Injury was cited as the most frequent reason for quitting sports. Intensive participation in organized sports beginning at an early age has been noted to be an important contributing factor to early attrition. Dropout may be either athlete-initiated or because of reasons not under an athlete’s control. Some authors consider dropping out to be a normal process in which the athlete is trying out different activities. There is very little information on the relationship between developmental stage and reasons to quit sports. It is noted that reasons to quit are different at different ages and developmental level. In one study elementary school students cited overemphasis on winning as a main reason; while high school students cited conflicts of interest as a main reason. Contrary to popular belief burnout is just one of many reasons to drop out from sports.

In many instances, children and adolescents may be just left out from participation in sports, even though they may have an intrinsic desire to play. It can be difficult to imagine that there are children and adolescents not in the “game” with so many youth apparently participating in sports at all levels, and with daily mass media exposure to sport. However, youth sport can be a highly exclusionary process, with only the elite performers being selected to participate (1). A closer scrutiny of the youth sports scene indicates that a large number of children and adolescents do not participate in organized sports because of many perceived or real barriers in adult organized competitive sports (1).

In addition to sports being a highly selective process, other important considerations include female gender, low socioeconomic status, and cultural influence as barriers for sport participation. Because of socialization bias, boys tend to be encouraged more for sports than girls. Also, girls who do participate do so at a relatively later age than boys, and then tend to drop out early. Importantly, there are very few female role models, and only one out of ten
coaches is a female. Low socioeconomic conditions are especially important consideration for the inner city urban youth; as more programs move away from local schools and communities to suburbs, they become less affordable. In many cultures, sports are a low priority compared to academic achievement and children are not particularly encouraged to be actively involved in sports. The risk for suicide in athletes is not an isolated phenomenon. Such a risk should be viewed within the overall psychosocial context of the athlete. In a clinical setting sport-related psychosocial screening should attempt to understand the context of any concerns that the athlete presents with. Some of the questions that might help in such as screening process include the following (1):

- Does the athlete or parents have a specific sport-related concern?
- Does the athlete participate in organized sports or play recreationally?
- What is the level of participation?
- How is athlete doing in school? Any non-sport activities?
- Do parents or coaches exert undue pressure on athlete?
- Who wants the athlete to participate in sports?
- Why do parents want the athlete to participate?
- How important is winning to the athlete, parents, the coach?
- How do the athlete and parents handle a win or lose?
- What do the athlete and parents know about the philosophy of the coach, team, or program?
- Is athlete getting special treatment at home? School?
- Is athlete compared to siblings?
- Any unfulfilled wishes from parents regarding their sport participation?
- Has a parents been barred from attending a game?
- Have parents made unreasonable financial commitment to sports?

Clinicians should also look for multiple indicators for potential psychosocial problems which can be primarily related to the athlete, parents, coach or the organization. Indicators of potential problems that are primarily related to athlete are as follows (1,11):

- Failure to recover from injury as expected
- Recurrent injuries
- Sudden withdrawal from sports
- Noncompliance with medical treatment
- Use of performance enhancing agents
- Undue focus on weight
- Thrill seeking behaviors
- Unrealistic expectations
- Deteriorating performance
- Aggressive behaviors
- Interpersonal conflicts
- Focus on athletes at the expense of other activities
- Adjustment problems
Suicide prevention efforts begin with recognizing potential indicators of problems, based on the clinical screening and identifying indicators of problems and risk factors. Awareness of suicide is important and athletes and their families should be educated about potential sport participation relates stressors, how to recognize early signs and when and where to seek timely professional help. Social support and social connectedness play a vital role in suicide prevention. In addition to office-based interventions by clinician’s community and school based interventions are very important part of the overall suicide prevention strategy.
CONCLUSION

The evidence either supporting or refuting any causal relationship between sport participation and suicide risk is at best equivocal. It is important to be aware of such a risk, however, and routinely screen athletes for sport related stressors and potential indicators of problems.

REFERENCES