

Effects of Physical Activity on Mental Health in
Adolescence and Emerging Adulthood
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Physical activity is known to have a variety of positive effects on the overall functioning of human beings. As developing professional counselors, understanding the effects of physical activity on mental health is of special concern. In order to understand the specific effects of physical activity on adolescents and emerging adults, an analysis of recent literature was conducted. It was found that physical activity has a profound impact on various aspects of development in these stages.

General Findings

A recent study explained the effects of high-intensity aerobic exercise and its power to preserve the ability to think. Researchers studied sedentary men and women who had a mild cognitive impairment (Center for Science in the Public Interest, 2010). Each participant was assigned to a group that either practiced stretching and balancing exercises, or to a group that participated in high-intensity aerobic exercise for approximately one hour, four days a week. At six months, the women in the aerobic exercise group improved at multitasking, information processing, paying attention, mental flexibility, and other areas of executive functioning (Center for Science in the Public Interest, 2010). The men in the aerobic exercise group demonstrated improvements only in mental flexibility (Center for Science in the Public Interest, 2010). Researchers believe the differences in improvement were due to the fact that the men may have been more fit at the beginning of the study than the women.

Further research has indicated that individuals who attain a high level of cardiovascular fitness exhibit fewer signs depression (Riewald, 2007). Depression is defined as a psychoneurotic or psychotic disorder marked by sadness, inactivity, difficulty in thinking and concentration, feelings of dejection, hopelessness, and occasionally, suicidal tendencies

(Riewald, 2007). Furthermore, an estimated 16% of all Americans will suffer from symptoms of depression at some point during their life, and 30% of all Americans will experience less severe mood-altering conditions (Stewart, Ricci, Elsbeth, Hahn, & Morganstein, 2003). As a result of experiencing these symptoms which cause decreased occupational performance, corporations are losing 44 billion dollars each year (Stewart et al., 2003). Beyond decreased occupational performance, there is a link between depression and an increased risk for health conditions such as diabetes, cardiovascular disease, and potentially death (Riewald, 2007).

This research revealed that individuals who attained a higher level of cardio-respiratory fitness showed fewer symptoms of depression and reported a higher level of emotional well-being (Riewald, 2007). Those who reported a higher level of mental well-being were those who exercised 11-19 miles per week (Riewald, 2007). There were no additional benefits for those who exercised more than 11-19 miles per week (Riewald, 2007).

Overall, this information demonstrates the importance of regular physical activity. Multiple benefits of regular physical activity include higher levels of cognitive functioning and emotional and mental well-being. In light of the fact that a large portion of Americans are likely to experience symptoms of depression and other negative psychological conditions at some point during their lifetime, it is crucial for professional counselors to understand effective means of prevention and intervention regarding mental health.

Physical Activity and Adolescents

Adolescence is the time between childhood and adulthood. Individuals are likely to undergo extreme emotional, physical, and mental changes while progressing through this stage. During this time period, many adolescents struggle with forming a self-identity and establishing a solid understanding of themselves and the world around them. Understanding how physical

activity can positively impact adolescents during this time of great change can be extremely beneficial. Helping these individuals make strong choices during adolescence can positively impact their lifelong development and facilitate a successful transition into the next stage of development.

Forming sound patterns of behavior and strong decision-making begins in adolescence. The choices made during this time period impact future choices, especially with regards to health behaviors. A recent study examined the relationship between the levels of physical activity and health behavior among adolescents (Delisle, Werch, Wong, Bian, & Weiler, 2010). It was found that as the amount of physical activity among adolescents increased, their health promoting behaviors increased, and their health risk behaviors decreased (Delisle et al., 2010). Health promoting behaviors included nutrition, such as consistent consumption of fruits and vegetables, implementation of stress management techniques, and sleep (Delisle et al., 2010). Health risk behaviors consisted of heavy use of alcohol, cigarette, and marijuana consumption (Delisle et al., 2010). These behaviors which can be addicting for some must be given special attention. Engagement in physical activity is associated with a reduction of the negative health risk behaviors, and may ultimately impact one's developing life patterns.

Furthermore, it is important to analyze how physical activity may influence the mental health and relationships of developing adolescents. Decreased anxiety and depression, improved academic performance, improved parental relationships, increased self-esteem, decreased anger, decreased psychological stress, lower levels of mental health problems, reduced drug use, satisfaction with mandatory gym classes, and increased quality of life and perceived life satisfaction have all been associated with participation in physical activity (Valois, Umstattd, Zullig, & Paxton, 2008).

One concept related to developing and maintaining an interest towards physical activity is self-efficacy (Valois, Umstattd, Zullig, & Paxton, 2008). The term self-efficacy may be defined as an individual's belief that they are able to effectively execute a specific course of action in order to achieve a desired goal (Valois et al., 2008). The overarching idea associated with self-efficacy and its relation to physical activity is that the perceived level of future participation in physical activity will affect one's current level in physical activity (Valois et al., 2008). Emotional self-efficacy is defined as one's perceived ability to cope with negative emotions (Valois et al., 2008).

One finding was the association between low emotional self-efficacy and lack of participation in any level of physical activity (Valois, Umstattd, Zullig, & Paxton, 2008). An even more significant finding was that reduction in physical activity mainly occurs during adolescence (Valois et al., 2008). Evidence of this idea can be seen in the statistic that participation in vigorous activity for a minimum of 20 minutes three days a week occurs at 69% among 12-13 year old adolescents (Valois et al., 2008). For 18-21 year old adolescents, equal participation in vigorous physical activity decreases to 38% (Valois et al., 2008). If this trend continues, then these reductions in physical activity will continue to be projected into adulthood (Valois et al., 2008).

Overall, there is a link between one's perception of their ability to engage in effective goal-oriented behavior and their ability to cope with negative emotions seems to have an effect when determining whether or not the individual will engage in physical activity. Understanding that physical activity has enormous mental health benefits demonstrates the need to work with the adolescent population to promote the belief that they are capable of engaging in physical activity.

There is particular concern regarding the fact that physical activity decreases during adolescence, a time of great change when the effects of physical activity are needed the most. Developing an intervention program is essential in order to promote physical activity among students across the country. In a study conducted by Pate, Ward, Saunders, Felton, Dishman, & Dowda (2005), the effects of a comprehensive school-based intervention among high-school girls were examined.

In their study, Pate, Ward, Saunders, Felton, Dishman & Dowda (2005) used the Lifestyle Education for Activity Program, also known as LEAP, at 24 participating high schools. LEAP was designed to modify the instructional practices and school environment to improve support for physical activity among high-school girls (Dowda et al., 2005). Changes in instructional practices were made by altering the content of physical and health education (Dowda et al., 2005). The goals of altering instructional practices were to improve self-efficacy and enjoyment regarding physical activity, to teach the skills that are essential in adopting and maintaining an active lifestyle, and to involve the participants in relatively vigorous activity for at least half of physical education class time (Dowda et al., 2005). The physical activities were gender-specific and were activities that are commonly enjoyed by girls and young women (Dowda et al., 2005). Aerobics, dance, walking, self-defense, martial arts, and weight training were all offered (Dowda et al., 2005).

The resultant findings were significant. Exposure to the intervention program for the duration of one academic year resulted in a 44.5% increase of students who reported participation in daily vigorous activity (Pate, Ward, Saunders, Felton, Dishman, & Dowda, 2005). Specifically, this study demonstrates the need to implement education programs in the school systems to teach adolescents about the effects of physical activity.

Overall, the decrease in physical activity during adolescence cannot be ignored. Physical activity has multiple positive effects on mental health and emotional-well being. It is an integral aspect of healthy development and functioning in this life stage and deserves further attention.

Physical Activity and Emerging Adults

Emerging adulthood can be a chaotic stage of development. In this stage, individuals in their late teens and early twenties grapple with issues surrounding increased independence, the transition to college and work, identity exploration, and the search for intimate relationships. It can be an emotionally and cognitively demanding time in the lifespan. Accordingly, emerging adults need to maintain healthy habits in order to successfully navigate this developmental stage. Physical activity is shown to have considerable effects on functioning in this stage and should be considered a fundamental component of good health.

The transition from high school to college or university life is a major stressor for most students. This change is associated with increased physical and psychological problems. For example, studies find decreases in physical health and increases in mental health among female undergraduates three months into their first year of college (Bray & Kwan, 2006). Although one might assume that stress related to this transition might be overcome within the first few months of college, other studies show that second-year students report that their highest level of general stress occurred in their first year of study (Bray & Kwan, 2006). These findings suggest that the adjustment to college life is a chronic stressor throughout students' first year of post-secondary education. A study conducted by Bray & Kwan (2006), indicates that students who participated in sufficient levels of vigorous physical activity during their first year of college study had more positive psychological well-being and fewer illnesses than did the students who were not sufficiently active during this time. Students who were sufficiently active scored lower in

negative mood and higher in positive mood in comparison to their insufficiently active counterparts.

Suicidality is another major area of concern for college students in emerging adulthood which physical activity can influence. According to The American Association of Suicidology (2007), an estimated one in 12 college students have made a suicide plan, and approximately 1,000 students die by suicide on college campuses each year. A study conducted by Taliaferro, Rienzo, Miller, Pigg, & Dodd (2008) found that college students who engaged in physical activity, especially aerobic activity, showed significantly lower rates of hopelessness, depression, and suicidal behaviors. These authors posit that their findings may support the use of physical activity as an additional modality in the treatment of depression, which additionally has implications for the prevention of suicide amongst college students. It is promising that physical activity could play a mitigating role in precluding such a devastating problem.

Emerging adults also commonly struggle with alcohol-related issues. Amongst college students, at least 40% engage in heavy or hazardous drinking behaviors (Wechsler, 2000). Although the reasons for drinking heavily vary across individuals, drinking to cope or escape negative mood is common and has a strong association with negative consequences (Cooper, Frone, Russell, & Mudar, 1995). A study by Weinstock (2010) suggests that engaging in alternative substance-free activities, particularly physical exercise, appears to be associated with reductions in alcohol use in college students. When students are able to adhere to an exercise regimen, they gain the many physical and mental health benefits that it has to offer, including the potential reduction of harmful consequences associated with hazardous drinking.

There is also an interesting correlation between yoga and mental health, particularly for emerging adult women. Women are socialized to view themselves as objects of evaluation, and

the extent to which they internalize this “self-objectification” can determine women’s vulnerability to an array of mental health risks, such as depression, sexual dysfunction, and eating disorders (Daubenmier, 2005). Yoga has become a very popular form of mind—body exercise which involves moving one’s body mindfully through a series of poses, as well as stretching and balancing the body while in a single pose. Yoga has many physical health benefits, such as increased strength, flexibility, and balance, but the underlying goal of yoga practice is to unify mind and body, partially through paying attention to subtle sensations in the body (Shiffmann, 1996). In a study conducted by Daubenmier (2005), women who engaged in yoga practice experienced lower self-objectification, fewer disordered eating attitudes, and greater body satisfaction scores relative to a baseline comparison group, suggesting that increased sensitivity to awareness of body sensations may prove effective in minimizing self-objectification. This study indicates that mind—body exercises such as yoga may lessen problems surrounding negative body image and eating disorders for emerging adult women.

Physical activity can have profound positive effects on the mental health functioning of emerging adults. It has been demonstrated to play a role in easing the transition to college, alleviating depression and suicidal ideation, and can be used as a form of alcohol intervention. In addition, certain forms of mind—body exercise have positive effects on women’s mental health. It is evident that there is an important connection between physical activity and functioning in this stage of development.

Implications for Counselors

There is considerable evidence that physical activity has significant effects on mental health in adolescence and emerging adulthood. The implications of this evidence for counselors and mental health professionals are readily apparent. Exercise represents a means by which a

potential intervention can affect both mental and physical health of the client. However, a barrier exists to applying exercise as an intervention in that counselors lack training in the area of exercise and mental health, because standards of training do not directly emphasize training for counselors in the specific domain of exercise physiology (Dixon, Mauzey, & Hall, 2003). As research involving physical activity and mental health increases, it may be wise for counselor training programs to include some training in the way exercise and physical activity relate to mental health interventions.

Dixon, Mauzey, & Hall (2003), recommend that caution should be taken before advising a client to begin an exercise program and note that counselors should ask their clients to seek medical evaluation before doing so. Beginning an exercise program involves the cognitive process and developing a success-oriented mindset, which can be accomplished by using positive self-talk (Dixon et al., 2003). Counselors should encourage clients to begin with small, obtainable goals while sustaining an internal dialogue. In many cases, once the client reaches their goal, they are inspired to go further (Dixon et al., 2003).

The above studies also have implications for school counselors and personnel. “An emerging experimental model, Expanded School Mental Health (ESMH) programs exemplifies the movement toward comprehensive health and mental health services to address, in part, problems such as emotional distress and behavioral problems” (Dixon, Mauzey, & Hall, 2003, p. 504). ESMH programs provide a full range of youth services in a familiar and non-stigmatizing setting—the school—in an attempt to address the limitations of traditional mental health agencies. ESMH programs represent an acknowledgment of the relationship between physical activity and mental health in youth. Such comprehensive school-based health models hold potential for addressing the need for physical activity interventions in adolescence. Dixon et al.

(2003) state, “An improved understanding of the benefits of exercise and physical activity for children and adolescents has the potential to enhance students’ quality of life and academic achievement” (p. 505).

It is also important for mental health practitioners who work with adolescents and emerging adults to assess their clients’ motivations for exercising in order to determine whether their drive relates to appearance or health and enjoyment. It is imperative that those in positions to detect eating disorders and negative body perceptions are aware that encouraging physical activity could adversely affect some individuals. In fact, for those with negative body perceptions, excessive exercise may do more harm than good in dealing with depression and suicidality (Taliaferro et al., 2008). In addition, engaging physical activity can be addicting for some, which is a consideration that should be given special attention. Too much or too vigorous exercise can lead to injury, and overtraining can lead to a short-term decrease in immune response as well as a short-term increase in negative affect (Dixon, Mauzey, & Hall, 2003).

Counselors should be more mindful of the relationship between physical activity and mental health functioning. It is reasonable to suggest that clients should implement a regular physical exercise schedule as an adjunct form of intervention in improving mental health. While it is important to be conscious of the potential risks involved with physical activity, it is associated with a multitude of positive effects that can be greatly beneficial to adolescents and emerging adults.

Discussion

In conclusion, there exists a multitude of evidence to suggest that physical activity has a positive effect on mental health in adolescents and emerging adults. Implications for counselors and mental health professionals are plentiful.

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