Behavioral Health Nutrition
a dietetic practice group of the Academy of Nutrition and Dietetics

Exercise Compulsion and Eating Disorders: Too Much of a Good Thing

By Sara R. Wilburn, BSDN

"What began the pursuit of pleasure had become the avoidance of pain."

Introduction

According to Bewell-Weiss and Carter, "exercise compulsion is characterized by a significant amount of physical activity combined with a compulsive need to do the activity" (1). Exercise addiction can be distinguished from compulsions and impulse control disorders both of which, like an addiction, involve excessive behavior that creates adverse effects (2). While gambling and internet addictions will be the only designated behavioral addictions in the upcoming DSM-5 (3), there is still more research needed to validate a separate diagnostic category for exercise compulsion (4).

What happens when we get too much of a good thing? In today's society we are often trained to believe that more is better. The more we workout, the more fit we become. However, what happens when a healthy habit turns into a serious health concern? Several messages about exercise are focused on cultural praise. America's "obesity epidemic", living a healthy lifestyle, using exercise as a tool for managing stress and depression all support such praise (4). Although there is truth in these messages, exercise could mean something different to someone suffering from an eating disorder, despite the healthy benefits provided.

The Addictive Nature of Exercise

Research indicates a parallel in brain activity with individuals who engage in compulsive exercise and those who substance abuse, supporting the addictive impact of exercise. The hedonic homeostatic dysregulation causes neuroadaptive changes with repeated use, resulting in decompensated reward circuitry in the brain (5). Similar to exercise restriction, symptoms of dysphoria, irritability, anxiety, and withdrawal appear when substance use is absent. Parallel with the eating disorder client, brain chemicals—serotonin and dopamine play a role in dysregulation and poor reuptake, causing the same mood instability (4).

Boecker, et al. studied the impact of brain chemicals of a runner, using PET scans to measure mood before and after a two hour run (6). Results present elevated endorphins attached to the prefrontal areas of the brain, greater euphoria and lower pain receptors, which create a sense of "numbness and feel good" mood in the runner. Both exercise and substance abuse increase dopamine release, eliminating anxious feelings or depression. In addition, continued use of substance or exercise alters sense of reward, creating an increase in use, frequency, and intensity. Feelings of distress appear, related to symptoms of withdrawal (6).

Eating Disorders and Exercise Compulsion

Literature presents mixed results in determining whether there's a higher prevalence of compulsive exercise with Anorexia Nervosa (AN) purging subtype compared to AN restricting (7). Recent research has identified the following predictors associated with exercise compulsion and eating disorders: Higher levels of dietary restraint, depression and self-esteem; lower levels of Obsessive Compulsive Disorder (OCD) symptoms and restricting subtype (1). Other research revealed more physical problems; elevated scores on the EDI (Drive for Thinness and Body Dissatisfaction); increased nutritional challenges, poor clinical outcome, longer hospitalization; and higher rates of relapses(8).

When assessing the client's relationship with exercise, it is critical to get a clear understanding prior to the onset of the illness (4). Other factors to consider are: elevated perfectionism, anxiety, depression, and OCD traits; higher self-esteem, lower body self-esteem; lower reward dependence and novelty seeking (4).

Discussion

What do we know about exercise? Exercise is very measurable, concrete, and has a significant amount of cultural reinforcement. It is not surprising that individuals characterized with eating disorder temperaments such as rigid, harm avoidant, living in a black and white world, and people pleasers are more highly susceptible to compulsive exercise. Often, these clients have found the one thing they do well, can do privately, and is culturally reinforced (4).

Journaling, body movement awareness, and relaxation exercises are among several techniques professionals use as part of the treatment process. The following questions can be asked in trying to evaluate whether exercise levels have gone from reasonable to excessive: (9)

1. Do you feel guilty if you miss your workout?
2. Do you still exercise when you are sick or hurt?
3. Would you miss going out with friends or spending time with family, just to ensure you got your workout in?
4. Do you freak out if you miss a workout?
5. Do you calculate how much to exercise based on how much you eat?
6. Do you have trouble sitting still because you're not burning calories?
7. If you're unable to exercise, do you feel compelled to cut back what you eat that day?

Although exercise compulsion is not included in the DSM-5 as a separate behavioral addiction, it is imperative that certain healthcare providers become familiar with its attributes (2). An experienced eating disorder physician, registered dietitian, therapist, and exercise physiologist should work together and educate the client, family, coaches, and educators to support optimal recovery (4). Furthermore, the client's support system must be an integral part of the treatment process, being aware of the slippery slope of exercise compulsion, especially after an individual leaves a structured treatment environment (4).

References:

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