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Calogero, Rachel M. and Pedrotty, Kelly N. (2007) Daily practices for mindful exercise. In: L'Abate, Luciano, ed. *Low-cost Approaches to Promote Physical and Mental Health: Theory, Research and Practice*. Springer-Verlag, United States, pp. 141-160. ISBN 978-0-387-36898-6.

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Section III

Primary Nonverbal Approaches

Rosenbaum's (2005) recent paper about the neglect of motor control as the pariah of psychology finds definite parallels in the neglect of the nonverbal medium in psychotherapy and prevention. Rosenbaum documented this neglect in textbooks, journals, and in the Social Science Citation Index. He developed some hypotheses about this neglect: (1) there aren't celebrities in the science of motor control while there are many in the cognitive area, (2) talk is human while motor control is animal, (3) motoric activities do not need the same kind of intelligence that is needed for talking, (4) motor behavior is too hard to study, (5) we think before we act, therefore why worry about what seem to be automatic actions? (6) motor control is the baby but talk is the bath water, and (7) motor behavior should be studied by neuroscientists and not by psychologists.

By the same token, we can find the same neglect in psychotherapy as well as in prevention treatises. Rather than accept this conclusion as a given, this writer made a summary check on samples of psychotherapy journals and textbooks to search for how many among these sources included nonverbal motor therapies. He found none. There are no references to nonverbal therapies in psychotherapy textbooks and journals. This area, however, has journals of its own but they are not read by the prevention and psychotherapy communities. They are a separate area of intervention independent of talk-based therapy.

The nonverbal medium is just not mentioned or used in psychotherapy. L'Abate and Baggett (1997, pp. 315–322) reviewed many of the nonverbal methods to improve behavior, and concluded: "The use of nonverbal behavior for therapeutic and para-therapeutic purposes has had, thus far, limited applications in clinical circles" (p. 315). L'Abate and Baggett mentioned some of the leaders who stressed the importance of using nonverbal techniques in psychotherapy, like Virginia Satir, Frits Perls, Albert Pesso, Ida Rolf, William Schultz, and many others. L'Abate and Baggett also offered a rationale for the use of nonverbal techniques in psychotherapy (pp. 316–317) and gave examples of nonverbal exercises for groups of individuals, couples, and families (pp. 318–321). Unfortunately, as far as this writer knows, the literature on nonverbal approaches to psychotherapy has not been validated by research as much as the verbal medium, to the point that if positive results are shown, they have been ignored by the prevention and psychotherapy professions. A great many nonverbal techniques received validation by the influence and mystique of a guru rather than by controlled evaluation. That state of affairs is unfortunate because it decreases the options that can be given to those who need help.

Why has this area been neglected by prevention and psychotherapy oriented professionals? In addition to the hypotheses raised by Rosenbaum (2005), some possible answers come to mind. First, the history of psychotherapy started with talk, and talk continued to be the preferred, if not the only, medium of communication and healing over the last century, and spilled over into this century. Second, it is easier to talk with someone in an office than to exhibit behavior that would be contextually inappropriate, i.e., one would not dance with a patient in one's office. Third, while nonverbal methods of therapy need to be integrated into the psychotherapeutic process, they, by definition, do not fit into the promotional approaches. They are based on a prolonged interaction with a professional, are expensive, and there is no knowledge about how many of these techniques become self-administered, independently of the presence and direction of a professional. Fourth, nonverbal behavior is for children, and while therapies for children do stress the nonverbal medium, adults do not need to be bothered with "childish" behavior.

In spite of these conclusions, there are indeed many nonverbal approaches, as shown in this section. They are easy to learn, become self-administered once the learning is completed, and last a lifetime.

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Daily Practices for Mindful Exercise



Rachel Calogero and Kelly Pedrotty

The idea that participation in physical exercise is essential for a healthy body and mind has been espoused in Eastern and Western cultures for thousands of years (Dalleck & Kravitz, 2002). Contemporary scientific research has supported this idea demonstrating that physical exercise can play a significant role in the primary and secondary prevention of certain physiological and psychological conditions including cardiovascular disease (Bassuk & Manson, 2003; Lee, Hsieh, & Paffenbarger, 1995), Type II diabetes (Chipkin, Klugh, & Chasan-Taber, 2001), cancer (Knols, Aaronson, Uebelhart, Fransen, & Aufdemkampe, 2005), osteoporosis (Kohrt, Snead, Slatopolsky, & Birge, 1995), sleep disturbances (Montgomery & Dennis, 2002), negative mood (Arent, Landers, & Etnier, 2000), depression (Byrne & Byrne, 1993; Dunn, Trivedi, Kampert, Clark, & Chambliss, 2005), anxiety (Byrne & Byrne, 1993; Long & van Stavel, 1995), psychological stress (Norris, Carroll, & Cochrane, 1992; Throne, Bartholomew, Craig, & Farrar, 2000), low self-esteem (Fox, 2000), and all-cause morbidity and mortality (Blair et al., 1989; Manson et al., 2002).

Despite this wealth of evidence that physical exercise can protect against a wide variety of human ailments, the relationship between exercise behavior and health is not always so positive. There is a dark side to exercise that is often masked by its social and scientific sanctioning as *good* for health. When an unhealthy relationship with exercise develops, physical and mental health can be compromised instead of optimized. This chapter presents a broadened conceptualization of unhealthy exercise that extends previous definitions of the phenomenon. First, the nature of unhealthy exercise as mindless exercise is considered, and its concomitant dangers are delineated. Second, the nature of healthy exercise as mindful exercise, and programmatic efforts to foster it, are described. Finally, this chapter concludes by offering some guidelines and techniques for the practice of healthy, mindful exercise at the individual and community level.

What is Unhealthy Exercise?

“I work at 100% all the time . . . push as long and as hard as I can.”

Previous research on unhealthy exercise has applied such labels as “exercise addiction” (Adams & Kirkby, 2002), “exercise dependence” (Hausenblaus & Downs, 2002), “obligatory exercise” (Davis, Brewer, & Ratusny, 1993),

or “excessive exercise” (Shroff et al., 2006) to describe the maladaptive or disordered behavior. A common quality shared by these conceptualizations is a compulsion to exercise, which often stem from addiction/abuse models (Steinberg, Sykes, & LeBoutillier, 1995; Veale, 1995) or individual psychopathology (Davis et al., 1993; Pasman & Thompson, 1988). If we compare unhealthy exercise patterns to other behavioral disorders such as pathological gambling, indeed the similarities are apparent. Table 7.1 lists the criteria for pathological gambling modified for unhealthy exercise based on the fourth edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-IV; American Psychiatric Association, 1994). Based on these modified criteria, it is clear that unhealthy exercise can follow patterns of addiction, dependence, obligation, and excessiveness (Davis, 2000).

We propose, however, that unhealthy exercise can take many other forms. Unhealthy exercise extends beyond frequency/intensity-based descriptions of activity to include a variety of other contexts in which exercise may or may not be undertaken (e.g., Robison, 2000; Taylor, Baranowski, & Sallis, 1994; Trost, Owen, Bauman, Sallis, & Brown, 2002). These contexts refer to the particular nature, meaning, and purpose of exercise for the individual, and they consider the social and cultural forces influencing exercise behavior. Engagement in exercise behaviors encompasses psychological and social components as well as physical components. Individuals’ thoughts, feelings, and behaviors related to exercise are shaped by a multitude of social and cultural influences that act upon them all the time (Otis & Goldingay, 2000; Rejeski & Thompson, 1993). Thus, instead of pathologizing the individual in regard to their exercise, we emphasize the various contexts in which this “pathology” has arisen and is maintained.

Unhealthy Exercise in Context

Exercise-relevant contexts can include, but are not limited to, an individual’s exercise history, physical condition, emotional experiences, belief systems, social relationships, ecological factors, and sociocultural pressures. For example, exercising without proper nourishment and hydration or in

Table 7.1. DSM-IV criteria for pathological gambling modified for unhealthy exercise

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- Feel preoccupied with exercise (think about it when not exercising).
 - Feel a need to exercise with increasing amounts of time in order to achieve satisfaction.
 - Have an inability to control your exercise use.
 - Feel restless or irritable when attempting to cut down or stop exercising.
 - Use exercise as a way of escaping from problems or of relieving a poor mood (feelings of helplessness, guilt, anxiety, or depression).
 - Lie to family members or friends to conceal the extent of involvement with exercise.
 - Jeopardize or risk the loss of a significant relationship, job, educational, or career opportunity because of exercise.
 - Keep returning to exercise after spending an excessive amount of money on exercise-related expenses.
 - Go through withdrawal when not exercising (increased depression, anxiety).
 - Exercise longer than originally intended.
 - Why don’t I want to go to dancing with my friends?
-

unsafe environmental conditions would be considered *physical* contexts that constitute unhealthy exercise. This is demonstrated by an avid cyclist who reported cycling in a severe rain storm because he could not continue his day without his scheduled workout. Avoiding exercise because of feelings of shame or guilt would be considered an *emotional* and *social* context that constitutes unhealthy exercise. This is demonstrated by an avid exerciser who reported that she no longer exercised because she had lost her “ideal” body shape and “ruined” her exercise regimen, and therefore could not face others who knew her as the “exerciser.” Exercising for the sole purpose of weight loss would be considered a *cognitive* and *sociocultural* context that constitutes unhealthy exercise. This is demonstrated by a woman who reported doing calisthenics in the bathroom of an airplane after she ate because she believed she would gain weight otherwise.

This broadened conceptualization of unhealthy exercise that considers various contexts for exercise behavior is significant particularly for identifying patterns of unhealthy exercise and the development of intervention and treatment protocols. First, asking questions about these various contexts, and not only about the quantity of exercise, can provide a more comprehensive picture of an individual’s experience with exercise. Second, by following a context-based model, treatment efforts can focus on changing the contextual factors contributing to the unhealthy exercise, and actually use the exercise itself as a therapeutic tool as it becomes redefined over time (Hays, 1999). This is in contrast to behavioral treatment protocols that tend to focus on reducing and ultimately eliminating the abusive behavior. Third, these contextual factors can be applied to understand the unhealthy exercise behavior and particular exercise issues of people across age, ethnic, and weight spectrums. Fourth, this approach does not ignore the pervasive, overarching cultural context perpetuating beliefs and/or myths about exercise. Currently, in many Western cultures, particularly American culture, there exists an almost religious fervor toward *being fit*, which has essentially normalized unhealthy exercise attitudes and behaviors (Otis & Goldingay, 2000; Robison, 2000). Media messages are saturated with promises of achieving the ultimate combination of weight loss, health, and happiness by performing the “right” exercise program: “Six-Pack in Six Days!” or “Lose 10 lbs. in 10 days!” or “Tone Your Way to Happiness!” These messages about fitness and exercise are distorted, confusing, and dangerous, and they do not consider the specific needs of individuals. Even the exercise prescriptions put forth by established authorities on fitness can be considered arbitrary and change regularly (Corbin, LeMasurier, & Franks, 2002). Not surprisingly, however, individuals consider these valid sources for determining their exercise goals, practices, and possibilities. It seems virtually impossible to disentangle the influences of the multiple contexts contributing to unhealthy exercise behavior. In order to understand the scope and impact of unhealthy exercise, it seems critical to address the historical, psychological, social, and cultural contexts that foster it.

Unhealthy Exercise is Mindless Exercise

Drawing from the work of Ellen Langer (1989), we have come to identify many of these exercise-relevant contexts as fostering “mindless” exercise. Individuals who mindlessly exercise approach it with particular beliefs about

why and how they should exercise that are based heavily on outcomes. According to Langer this outcome orientation develops early, “From kindergarten on, the focus of schooling is usually on goals rather than on the process by which they are achieved” (p. 33). A focus on outcomes fuels mindless exercise by keeping individuals focused narrowly “out there” on what can be gained, lost, fixed, numbed, quieted, or undone. Attention is directed toward the outcome, and not the process of exercise itself.

An outcome orientation may explain the considerable dependence people seem to have on fitness “experts” to tell them how to exercise. There is this assumption that someone else (e.g., magazine models, people at the gym, personal trainers) knows better than us about what our bodies need, how they should look, and how they should feel regarding exercise. Importantly, this reliance on others for how we should exercise fosters mistrust of our own bodies’ preferences and needs related to exercise. Certainly, there are fitness professionals who consider individual needs and promote mindful exercise, but many people do not have direct or safe access to these resources (Wilson, Kirtland, Ainsworth, & Addy, 2004). An outcome orientation may also explain people’s adherence to rigid definitions for what constitutes exercise, thereby contributing to individuals’ fundamentally distorted reasons for *why* they should exercise and *how* they will exercise.

Mindless exercise as described throughout this chapter includes any of the following experiential patterns: exercising solely for weight loss or reshaping the body, self-punishment, affect regulation, acquiring “permission” to eat, identity maintenance, in all or nothing patterns, in obsessive, rigid patterns, surreptitiously, to avoid social interactions, when sick, in pain, injured, physically fatigued, malnourished, undernourished, and/or dehydrated, avoiding exercise completely, being consumed with thoughts of exercise whether one actually exercises or not, dreading it or feeling it to be a “chore,” and when exercise presides over all other experiences. Together, the patterns described above represent an overuse/misuse of the body and a disconnection between the body and mind, which is referred to as “mindless” exercise.¹

Based on this broadened definition, it is clear that mindless exercise can be completely unrelated to the actual frequency or volume of exercise undertaken. In fact, recent research has demonstrated that individuals who experience frequent negative thoughts and feelings about exercise, but do not actually exercise, report lower self-esteem, more depression, and more disordered eating compared to individuals who frequently engage in exercise without these negative thoughts and feelings (Ackard, Brehm, & Steffen, 2002). Thus, it is not the amount of exercise per se that contributes to an

¹ In determining the extent or severity of unhealthy exercise, it is important to consider the consistency of the patterns and the length of time they have been experienced. For example, individuals may have thoughts such as “I must go to the gym today to make up for what I ate last night” or “I need to run to alleviate my stress” or “I just need to do 10 more stomach crunches even though my back hurts.” Not everyone who has had these thoughts practices unhealthy exercise. While these thoughts are not part of a healthy, mindful mindset (to be discussed shortly), they may not reflect the individuals’ overall approach to exercise, and should be considered along with the other aspects of their exercise experience. However, depending on the context these thoughts can lead to a distorted, mindless approach to exercise over time, and thus should be considered seriously in the identification of unhealthy exercise.

unhealthy relationship with exercise, but rather the particular mindset by which the exercise is guided. Mindless forms of exercise may account for the relatively low participation rate in regular physical activity despite its highly popularized usage and promoted health benefits (Centers for Disease Control and Prevention, 1995; Rosenberg, 1998).

To further illustrate this point, consider the exercise programs of the following individuals: Case 1: Swimming, weight training, and cycling 4 hours per day, 6 days per week. Case 2: Treadmill for 30 minutes and 200 stomach crunches before bed, 7 days per week. Case 3: Yoga, weight training, and racquetball or running, 4 days per week. Case 4: Aerobics classes, running, and spinning 3 hours per day, 5 days per week. Case 5: Dance class 1 day per week, walking 5 days per week, stretching most days per week. Can you identify the unhealthy exerciser? Now, consider these cases again with the following additional information. Case 1: History of being a competitive athlete, no injuries, prioritizes proper nutrition, and “athlete” is not the primary identity. Case 2: Severe anxiety and guilt if exercise is missed, no rest days or variety, and dreads doing it. Case 3: Enjoys the activities, incorporates variety, exercises with others, and no known negative affect associated with it. Case 4: Exercise is primary focus, no rest days, no enjoyment, never feels like it is enough, inadequate caloric intake to support the activities, and uses it to avoid other social interactions. Case 5: Enjoys the activities, previous history of exercise avoidance, feels good moving in body, and the focus is not weight loss.

When presenting this simple illustration in workshops, Case 2 is most often identified as the healthiest and Case 4 is most often identified as the unhealthiest when the quantity of exercise is used to make the diagnosis. However, the additional information tells a different story and in fact, Case 2 is just as unhealthy as Case 4 even though their quantities are not comparable. Case 3 and Case 5 are actually the healthiest based on the overall quality of their exercise experience. Case 1 also appears healthy, but it is critical to probe athletes about their genuine pleasure and enjoyment, which is often assumed just because they continue to participate in a sport. In sum, the nature, meaning, and purpose of the exercise expands the scope and impact of unhealthy exercise considerably (Calogero & Pedrotty, 2004; Cox & Orford, 2004), and warrants the development and implementation of more specific intervention efforts.

Prevalence and Consequences of Mindless Exercise

“I like the pain. I want to feel the pain. If I can’t exercise, I cut.”

The generally accepted views of exercise as good and beneficial place exercise in a different category from other types of behaviors, thus making it difficult to identify a problem (de la Torre, 1995; Tanji, 2000). In fact, unhealthy exercise practices are often viewed as disciplined and not disordered. In addition, the literature is plagued with different labels and definitions for the phenomenon (Hausenblas & Downs, 2002). However, some evidence does exist from community and clinical samples suggesting that other factors besides quantity constitute unhealthy exercise, and that unhealthy exercise is a significant problem.

Emphasizing the multidimensional nature of obligatory exercise, Ackard, Brehm, & Steffen (2002) demonstrated an association between negative emotionality and exercise as the best predictor of disordered eating, depression, and self-esteem. Based on self-reports of the exercise frequency, exercise fixation, and exercise commitment among 586 college women, a remarkable 42 % of this sample were identified as having a dysfunctional or unhealthy relationship with exercise: Almost half of this sample of college-aged women engaged in mindless forms of exercise. Recent research by Jon Mond and colleagues has attempted to refine the definition of “excessive exercise” for the purposes of the treatment and prevention of eating disorders. In a community sample of women aged 18–45, exercise related to (a) changing appearance or body tone and (b) feeling guilty about missing an exercise session were the two qualities most strongly associated with eating disordered behavior and reduced quality of life (Mond, Hay, Rodgers, Owen, & Beumont, 2004). Based on these criteria, 14.2 % of 169 women were identified as excessive exercisers. Notably, the self-reported frequency of exercise was unrelated to disordered eating and quality of life. Replicating these findings in a larger general population sample, 17 % of 3,472 women aged 18–42 reported either exercising solely to influence appearance (i.e., weight, shape, or body tone), guilt about missing an exercise session, or both of these qualities, indicating their “excessive exercise” (Mond, Hay, Rodgers, & Owen, 2006). Again, notably, the self-reported frequency of exercise was unrelated to disordered eating and physical and mental health.

This research underlies the importance of the quality of the exercise, and in particular people’s motivations for participating in exercise. Research examining the relationships between exercise motives and psychological well-being has demonstrated that extrinsic (or outcome-based) exercise motives (e.g., social recognition, changing appearance) are significantly related to poorer psychological well-being whereas intrinsic (or process-based) exercise motives (e.g., feeling revitalized, personal enjoyment) are significantly related to better psychological well-being (Maltby & Day, 2001). Adkins and Keel (2005) examined the distinction between the quality versus the quantity of exercise as they relate to disordered eating symptoms in a sample of college students. These researchers demonstrated that appearance-based motives for exercising were associated with higher levels of drive for thinness, bulimic symptoms, body dissatisfaction, and other disordered eating patterns compared to nonappearance-based motives (Adkins & Keel, 2005). Furthermore, in appearance-based exercisers, it was the quality of the exercise behaviors, and not the quantity of the exercise itself, that was associated with eating pathology. For nonappearance-based exercisers, neither compulsive nor excessive exercise predicted eating pathology. An additional interesting finding in this research revealed that health and fitness motives for exercising were associated with less disordered eating, but a greater compulsion to exercise. While health and fitness motives may be considered intrinsic motives, it is clear from this research that these intrinsic motives do not foster better psychological well-being with regard to exercise attitudes and behaviors. Thus, at first glance, intrinsic motives for exercise may seem “healthy,” but may actually stem from an outcome-based orientation toward exercise that can be masked by the ubiquitous messages that indiscriminately link “exercise” and “health.” Together, these findings suggest that outcome-based exercise motives such as exercising for the purpose of weight loss,

changing appearance, or social approval negatively affect people's psychological well-being and contribute to disordered eating patterns.

Pathological patterns of exercise have been implicated in the etiology, development, and maintenance of eating disorders since the early 1970s (Beumont, Arthur, Russell, & Touyz 1994; Brewerton, Stelfox, Hibbs, Hodges, & Cochrane, 1995; Bruch, 1973; Davis, 2000; Davis et al., 1997; le Grange, & Eisler, 1993; Shroff et al., 2006; Thompson & Sherman, 1992; Yates, 1991). Clinical studies have estimated that the prevalence of "excessive" or high-level exercise in individuals diagnosed with inpatient eating disorder populations varies between 33 and 100% (Calogero & Pedrotty, 2004; Davis, Kennedy, Ravelski, & Dionne, 1994; Davis et al., 1997; Katz, 1996). In a 10-year follow-up study of 95 participants with anorexia nervosa, the compulsion to exercise at discharge predicted earlier relapses and chronic pathological outcomes (Strober, Freeman, & Morrell, 1997). High levels of total and aerobic exercise reported by participants with eating disorders have been significantly related to high levels of drive for thinness and longer periods of hospitalization (Solenberger, 2001). In a sample of 254 women in residential treatment for eating disorders, 40% of the women reported that their unhealthy exercise behavior preceded the onset of their eating disorder, with some identifying the onset of excessive types of exercise as early as 11 years old (Calogero & Pedrotty, 2004). In a sample of 1,857 women across subtypes of eating disorders, 39% of the entire sample met criteria for excessive exercise (Shroff et al., 2006), which was defined as interference with important activities, exercising more than 3 hours per day, inappropriate times and places for exercise, and exercising despite injury, pain, or illness. In this sample, the highest prevalence of excessive exercisers (54%) was indicated for the purging subtype of anorexia nervosa. Thus, although the definitions vary, mindless forms of exercise appear to be prevalent to varying degrees in both community and clinical populations.

Other Negative Consequences

It is perhaps not surprising that engaging in mindless exercise places individuals at risk for a multitude of physical injuries. A non-exhaustive list of these dangers includes stress fractures (Burr, 1997), non-fatal, often disabling, injuries (Plugge, Stewart-Brown, Knight, & Fletcher, 2002), decreased immune function (Fry et al., 1994), osteopenia and osteoporosis (Golden, 2002), and even death (Davis 1997). Anecdotal reports from women communicated to the authors illustrate the permanent physical damage that can result from mindless exercise. For example, a collegiate runner who continued to run every day despite persistent knots and cramps in her legs damaged her leg muscles so severely that she will never be able to run again. A middle-aged woman reported doing thousands of stomach crunches every day in an effort to obtain a flat stomach, and eventually damaged the protective skin surrounding her spine to the point of causing permanent damage to her lower back.

Beyond the direct influence of mindless exercise on the body, when the focus of the exercise is outcome-based compared to process-based it can place people in dangerous or unsafe situations. Although there is little to no documented research about these physical dangers related to unhealthy exercise, the case example below illustrates their significance in the lives of mindless exercisers.

Robin often woke up at 4 a.m. and went for a 5–10 mile run. Instead of staying in bed with her husband who she rarely saw because of their work schedules, Robin would run, regardless of the weather or season. Although the paths and streets she ran were not completely desolate, she said that it was almost always dark when she began running, and she felt uneasy being alone. She remembers her heart racing many times when she heard a car slow down behind her. On several occasions, men, presumably intoxicated, yelled obscene remarks or whistled/called to her. She admitted that more than once she barely avoided being hit by a drunk driver. However, she believed firmly that nothing “bad” would actually happen to her.

By rigidly adhering to the same routine for purposes clearly unrelated to genuine physical health and well-being, the case of Robin and many others illustrates the serious effects of mindlessness on personal safety and awareness of environmental threats and/or dangers.

Although lacking in empirical research, individuals have provided anecdotal reports to the authors describing the deleterious effects of mindless exercise on their social relationships, including relationships with partners, children, parents, siblings, friends, and/or co-workers. For example, a woman reported that she exercised for 3 hours every day on her honeymoon. When prevented from exercising, she became irritable and fought with her spouse. In another example, a married couple admitted that they spend most of their day exercising, and they prioritize it over spending time with their daughter. In sum, considering both the qualitative and quantitative evidence presented here, mindless patterns of exercise are detrimental, and not beneficial, to health. Instead, mindless exercise appears to be a significant problem that warrants direct treatment independent of any concomitant eating-related problems (Beumont et al., 1994; Calogero & Pedrotty, 2004; Solenberger, 2001).

What is Healthy Exercise?

“I have far more strength than I expected, and I have better access to that strength.”

Healthy exercise is conceptualized here as “mindful exercise,” which is based on process and not outcomes (e.g., Douillard, 2001). The practice of mindful exercise should adhere to the four basic principles outlined here. First, exercise should be used to rejuvenate the body, not exhaust or deplete it. Second, exercise should enhance mind–body connection and coordination, not confuse or dis-regulate the mind–body relationship. Third, exercise should alleviate mental and physical stress, not contribute to and exacerbate stress. And finally, exercise should provide us with genuine enjoyment and pleasure, not provide pain and be dreaded. Approaching exercise with a mindful orientation should lead to feelings of control, greater freedom of action, and less burnout (Langer, 1989).

The original development of these conceptions about healthy (mindful) and unhealthy (mindless) exercise emerged out of a need to directly identify and address the exercise issues of women in residential treatment for eating disorders. Despite the significant struggles with exercise that women with eating disorders often experience, disordered patterns of exercise have been viewed often as symptoms that will subside with general eating disorders treatment. As indicated above, Strober and colleagues (1997) have demonstrated that this is clearly not the case. However, this common wisdom has prevailed and it has prevented exercise issues from being treated specifically

and systematically over time. The exercise program developed by the first two authors (see Calogero & Pedrotty, 2004) provides women with eating disorders the opportunity to experience, practice, and process exercise in new ways. With guidance and supervision from Exercise Coordinators, the women in the program are challenged in weekly group settings to sense, support, and strengthen themselves through a variety of physical activities. One key focus of the program is to enable the women to identify the differences between mindful and mindless patterns of exercise, and actually practice new ways of being physically active and moving in their bodies. A second key focus is to raise their awareness of the various contexts that foster mindless exercise, and how to change these contexts. A third key focus is to enable the women to distinguish between what they like to do and what they experience as fun, as opposed to what their eating disorder/unhealthy mindset “likes” to do, or “tells” them to do. Normalizing an exercise program so that it is healthy and beneficial requires a capacity to address internal needs rather than external concerns. Over time, by learning to rely upon adequate rest and nutrition, and working to develop self-respect and self-care, many of the women have been able to make healthier, more *mindful* choices about their exercise.

The exercise principles and interventions utilized in populations with eating disorders are applicable to everyone’s exercise experience, and therefore can be extended to the broader population. Generally, almost any community member can use these daily practices to challenge, change, and ultimately circumvent unhealthy exercise in their own lives and the lives of others. The remainder of this chapter describes the basic guidelines and techniques that we have found to be most effective for promoting mindful exercise in people’s lives.

The Practice and Process of Healthy Exercise

Sensing the Self

The first fundamental element of healthy exercise includes sensing the self. Individuals who engage in mindless exercise are not utilizing exercise to *sense* and stay connected to the body. Instead, exercise activities and environments are selected that direct people’s attention away from themselves and not to how they feel during the activity itself. Individuals who are not sensing themselves do not focus on breathing, do not know when to stop certain movements or activities, and often compare themselves to others during exercise. It is important that individuals pay attention to their own bodies, which allows them to be aware of themselves experientially during periods of physical activity. Sensing the self requires paying attention to how the body feels while it is in action, and not only after it has acted.

Supporting the Self

The second fundamental element of healthy exercise includes supporting the self. Individuals who engage in mindless exercise are not utilizing exercise to *support* the body in a way that maintains their psychological and physical balance. Instead, individuals adopt exercise practices that often serve only one purpose or need, which is often the attainment of the goal (usually weight

loss). When balance is absent from an exercise program, it is difficult to know how much exercise to do, which exercises are most appropriate for us, when other social experiences should take priority, or how to fuel ourselves with appropriate amounts of food. This, in turn, increases reliance on external sources to guide our bodies instead of our internal experiences. For example, Zoe, a former dancer, only considered dance-related activities to be exercise, and her main goal was to be able to do a split again. She declined opportunities to be active with friends (e.g., biking) because it was a waste of time for her – it did not count as exercise. Attaining balance requires making mindful choices about what activities (exercise and non-exercise) to incorporate into our lives. Variety, flexibility, and enjoyment are key elements to supporting the body with healthy exercise.

Strengthening the Self

The third fundamental element of healthy exercise includes strengthening the self. Individuals who engage in mindless exercise are not utilizing exercise to *strengthen* the body and mind. For some individuals, exercising is a way to punish the body or to “beat up” the self. For other individuals, the exercise performed does not foster their natural strengths, which can hinder the potential for genuine enjoyment and satisfaction in the activity. And still for other individuals, the label “exerciser” becomes the primary identity (Anderson & Cychosz, 1995), which renders them vulnerable to feelings of invalidity and inadequacy if they stray from their exercise routines. This mindset serves to weaken, not strengthen, the body and mind over time. For example, Ava belonged to the track team in high school and identified herself as a runner. In college, Ava did not make the track team and decided to continue running on her own. She admitted that running always felt like a punishment, but she had to do it because she was a runner. Running interfered with other social activities and she was often too exhausted to complete her coursework. In this way, exercise served to drain and weaken her mind and body over time. Individuals should be encouraged to engage in activities because they enjoy them, not because they define them.

A Prescription for a Mindful Exercise Program

There is no magic number of calories, minutes, miles, laps, repetitions, or classes. In fact, it would be contradictory to prescribe mindful exercise in terms of numbers. Mindful exercise does not need to be counted. Instead, building on the elements of sensing, supporting, and strengthening the self, we prescribe that activities be selected based on the four components described below: Function, Feeling, Fun, and Fuel. In order to self-monitor exercise patterns and identify mindless exercise activities, it is helpful to create a personalized exercise checklist. This checklist can be created by generating a list of questions about one’s specific exercise activities. These questions should address specific issues regarding whether the exercise works toward sensing, supporting, and strengthening the self as well as identify how these activities do or do not incorporate function, feeling, fun, and fuel in mindful ways. Reviewing the checklist before and after exercise may help individuals stay present and connected to their bodies, and avoid using exercise for

Table 7.2. Examples of items for an exercise Checklist

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- Do I want to exercise because of what I ate today?
 - Is there another activity I would rather be doing today instead of exercise?
 - What exactly would I like to be doing right now?
 - Is today a rest day? What exactly would I like to do with my day?
 - Am I feeling guilty because I do not think I am exercising enough?
 - Am I avoiding exercise today because I am uncomfortable in my body?
 - Do I want to go exercise alone so no one will interfere with what I do?
 - Do I feel that if I cannot do everything I planned for exercising than I do not want to do any of it?
 - Did I enjoy this exercise the last time I did it?
-

unhealthy or mindless reasons. At the very least, asking questions related to specific exercise issues before exercising requires a moment of pause. Even if individuals continue to exercise in an unhealthy way, it may not be to the same degree. The key to its effectiveness is answering honestly and following through with behaviors that keep the self safe and strong. This checklist should be reviewed regularly if struggling with unhealthy exercise patterns and kept in a place where it is easily retrieved. Table 7.2 provides examples of questions for an exercise checklist based on different types of exercise issues.

Function

Why we exercise determines and guides *how* we exercise. An important message to propagate in the community is that the sole purpose of exercise should not be weight loss (Burgard & Lyons, 1994; Gaesser, 2002). Research has shown that not all exercising individuals will significantly reduce their body weight (Gaesser, 2002). More recently, it was shown that exercise can decrease total and abdominal body fat without observing corresponding changes in measures of relative weight such as body mass index (Janssen et al., 2004). Furthermore, debunking the “thinner is better” doctrine, researchers have found that weight has little bearing on living a long life; it is about being physically fit, not physically fat (Barlow, Kohl, Gibbons, & Blair, 1995). Thus, the function of exercise in people’s lives should necessarily focus on purposes other than weight loss. It is essential to shift from a passive weight loss mindset to a more mindful reflection about what exercise can and cannot bring to one’s life overall. Physical activities should be selected that support a wide spectrum of physical and mental functioning, bring pleasure, and enhance feelings of strength and self-competence.

Feeling

How we exercise determines and guides *what* we feel when we exercise. An important message to propagate in the community is that physical activity should connect us to our bodies, not disconnect us (Douillard, 2001). It is especially important to select activities that minimize feelings of body dissatisfaction, body shame, comparisons with others, guilt, and punishment; instead, physical activities should foster natural strengths and abilities, and not require self–other comparisons to feel good or worthwhile. By paying attention to how the body feels, and how the exercise experience makes us feel, safer decisions can be made in the moment about if and how we should exercise on a particular day.

Fun

Being able to explore how *we* like to move in our bodies and what makes *us* feel healthy and strong can be very empowering, and change our relationship with exercise. An important message to propagate in the community is that physical activity should bring pleasure, not pain. Many individuals do not consider exercise to be fun. As we suggested earlier, this is partly because the exercise being performed is not truly self-chosen and not a preferred way of moving in one's body. However, participation in exercise, and in particular sports participation, has been associated with personal enjoyment, personal growth, and improved social integration (Wankel & Berger, 1991). By challenging and changing our rigid categories, or "preconceived cognitive commitments" (Langer, 1989), about what constitutes real exercise, endless possibilities for physical activity become available to us. Ultimately, greater enjoyment can lead to greater adherence (Wankel, 1993) and reduced dependence on numbers to tell us when to stop. See Table 7.3 for examples of fun exercises suggested by former mindless exercisers.

Fuel

The dangers of exercising when the body is not properly fueled, hydrated, or rested can include fatigue, injury, fainting, major organ failure, and even death. Often individuals feel that exercising gives them permission to eat, which reflects the outcome orientation of mindless exercisers. Being "in shape" includes getting adequate nutrition (Otis & Goldingay, 2000). In order to be safe and obtain the most physical and mental benefits from periods of physical activity, the selected physical activities should include appropriate nutritional support.

General Guidelines for Challenging and Changing Mindless Exercise

In reality, we recognize that it can be difficult to incorporate the missing pieces of sensing, supporting, and strengthening the self into our exercise practices, and to challenge the barrage of societal messages and pressures about what is and is not exercise. We offer some suggestions below about how to begin identifying and challenging mindless exercise behavior in

Table 7.3. List of fun physical activities generated by former mindless exercisers

Biking	Roller blading	Kite flying
Hiking	Skiing	Trampoline
Rock climbing	Making snowpeople	Nature walks
Playgrounds	Apple picking	Dancing
Gardening	Walking pet	Bowling
Yoga	Swimming	Kickboxing
Flag football	Horseback riding	Canoeing
Intramurals	Ice skating	Playing with kids
Jump rope	Walking tours	Volleyball
Raking Leaves	Karate	Tai Chi

ourselves and others. Each suggestion is accompanied by references to actual techniques that can be found in Tables 7.4 and 7.5. Individual-level interventions are indicated with an “I” and group-level interventions are indicated with a “G.” These guidelines can be modified to fit the needs of specific participants, specific persons, or broader groups and communities. It is important to remember that the overarching focus should be to help individuals reclaim exercise for themselves by redefining and rediscovering it in a mindful way.²

Explore exercise history to determine past and present experiences with exercise. Examine individual reasons for exercising in the past and present, which will help to understand the present mindset guiding the exercise. Questions to ask include: What are your earliest memories of being physically active? How would you describe your relationship to exercise up to this point? After a workout, do you feel refreshed & energized? Do you feel present and connected to how your body feels when you exercise? What types of exercise do you do and what is the usual setting? Are you looking forward to the activity again? The answers to these questions are important for determining if exercise is undertaken for unhealthy reasons (#2I, 3I, 12G).

Educate about the specific dangers of mindless exercise and exercise myths. It is necessary to discuss basic information about how the body uses food as fuel for the heart, brain, and muscles – food is energy and we need it. Plan activities around meals to insure proper fueling and refueling of the body. Remember, we should eat to exercise, not exercise to eat! It is also necessary to challenge exercise myths. It is important to consider the words that people use to describe their exercise goals and experiences. We suggest deleting these words from one’s exercise vocabulary: tone, sculpt, firm, shape, lift, and tighten. These words reflect media hype and distort rather than clarify our understanding about the actual structure and function of our bodies. Perhaps one of the most pervasive exercise myths is that we can get “toned.” It is important to understand that muscle tone refers to a muscle’s level of fullness or firmness. Therefore, to be toned is to have muscle. It is often eye-opening to tell individuals that if you are able to walk and do activities of daily living your muscles already have tone. It should be stressed that *everybody has tone*. This usually leads to challenging another pervasive exercise myth – that muscle can turn into fat and fat can turn into muscle. Muscle and fat are two separate types of body tissues and cannot be converted into the other (e.g., Otis & Goldingay, 2000). Educating ourselves and others about exercise facts and myths is essential to changing unhealthy exercise practices (#7I, 9I, 1G–13G).

Serve as a role model for safe and healthy exercise behavior. As members of families, peer groups, communities, workplaces, and society, we transmit

² It is important to emphasize that it is not safe or appropriate for *all* individuals who engage in unhealthy exercise to continue exercising. If individuals have been diagnosed with an eating disorder or have reported disordered eating, are medically compromised, not adhering to appropriate nutritional guidelines, or not changing their mindless exercise behavior, then they may not be ready to benefit from participation in the practices we have described here. In addition, exercise should not be provided for the sake of exercising itself. This may actually contribute to the belief that exercise is absolutely necessary despite weight or other health concerns, and thus may further exacerbate the unhealthy exercise.

Table 7.4. Examples of individual-level interventions to challenge mindless exercise practices

Intervention	Description	Example
1. Exercise World	Draw the people, places, things, feelings, thoughts, actions related to exercise. Provides powerful, nonverbal expression of exercise experience and identifies specific targets for change.	
2. Exercise Journal	Record thoughts and feelings before, during, and after exercise. Provides check-in and can redirect to healthier behavior. Record thoughts about specific topics or questions related to exercise.	Reflect on questions such as: what have I missed in my life because of exercise? what do I feel unwilling to change and why? what exercise issue did I struggle with the most today?
3. Checklist	Self-generated questions to ask before exercise that are specific to the exercise issues. Provides check-in and can redirect to healthier behavior. Should leave checklist next to sneakers or in gym bag.	See Table 7.2.
4. Mindful Reminders	Post positive, informative, individualized notes in strategic places to remind about purpose of mindful exercise.	"I stop exercising when tired." "I will support my mind and body with fun physical activity." "I do not exercise to burn calories." "If I look at the time more than 3 times I stop."
5. Healthy Buddy	Exercising with a healthy person encourages mindful exercise choices and provides a role model.	Walk with friends, play volleyball, bring buddy to gym. Be careful that you choose someone who you will not compare to.
6. Reframe Goals	Setting realistic goals that incorporate mindful exercise principles can reduce mindless exercise.	Make your physical activity goals about enhancing your life overall instead of just your physical self. Take a dance class instead of running if you are not a runner. Start a garden if you like to be outdoors.
7. Ripped	Rip out pages of fitness magazines that contain triggering images (ads, tips, interviews) and see what information is left that would help guide healthy exercise. Identify mindless exercise messages. Reduce reliance on mindless exercise information.	Magazines such as <i>Shape</i> , <i>Fitness</i> , or <i>Men's Health</i> work well here. They depict unrealistic images of men and women and offer conflicting and unhealthy exercise tips. Be prepared to offer evidence and information to support your critiques.
8. Avoid Triggers	Identify activities that lead to mindless exercise and stay away from them. Selecting alternative, pleasurable physical activities and contexts enhances adherence to mindful exercise principles.	Do not run on the treadmill if there is constant competition between you and the time or you and the person next to you. Explore how you like to move in different ways.
9. Fuel Up	Fueling the body properly will reduce fatigue and overall mindless exercise tendencies, allowing the healthy exerciser to feel more pleasurable.	Place snacks next to checklist, in car, in gym bag, so they are easily accessible before exercise.
10. Slow Pace	Slowing the pace of activity, if possible, when triggered by environmental cues (e.g. other bodies, gym) can re-focus attention to self and staying connected to the body.	Close eyes whenever possible to focus on the self. Change activity or stop it completely if mindless thoughts and feelings do not relent. Move more slowly and intentionally, paying attention to all body sensations. Remind self of personal, mindful goals to keep focused.

Table 7.5. Examples of group-level exercise interventions to challenge mindless exercise practices

Intervention	Description	Example
1. Trust Exercises	Creates connection with self and others through group and partner work.	Partner squat, partner yoga, kneeling on exercise ball.
2. Balance Exercises	Directs attention toward being calm and present while increasing mind and body strength.	Bicep curls on a bosu ball, standing on one foot, yoga.
3. Channel Aggression	Provides safe outlet for negative feelings so they are not directed toward the self and can be shared with others.	Ball slap, kickboxing, karate, tug of war, yoga.
4. Conscious Cardio	Use different senses to notice surroundings and be present during activity.	Smell flowers, listen to different sounds, focus on the breath.
5. Cross-Training	Creates variety and enjoyment while strengthening body and mind.	Basketball, swimming, gardening, yoga, bike riding, dance, change activities when you can.
6. Circuit Training	By moving through different exercises consecutively it reduces time, can be at home or with friends, adds variety.	Swimming, squats, kicks, core work, jumping jacks, jump rope, yoga poses, dance.
7. Touching Muscles	Touching a muscle to feel it engaged during exercise increases connection to physical and overall self.	Touch upper leg while sitting against wall to feel quad muscles working.
8. Slow and Steady	Moving with purpose and control increases connection and focus on form rather than momentum and numbers.	Try to kneel on exercise ball.
9. Fun in the Sun	Be active outside whenever possible to increase fun and stay connected to social world.	Take a long walk, play catch, rollerblade.
10. Recess	Engage in activities that have positive associations to enhance enjoyment and get out of ruts.	Play on a playground, swing, jump rope, run the bases, tag.
11. Numbers and Colors	When doing repetitions, count random numbers or use colors to avoid obsessing.	17, 80, 44, 2, 53 or purple, red, green, blue, yellow.
12. Process	Talk to others before and after physical activity about thoughts and feelings experienced during the activity.	After a run or playing ball, talk about what thoughts/feelings arose and what to repeat or change next time.
13. Breathe	Creates mind-body connection by maintaining a focus on the breath throughout activity.	Practice watching and noticing breath to monitor exertion and be mindful.

and reinforce social information about exercise. If we are uncomfortable with our bodies, exercise mindlessly, or believe that exercise is really about weight loss, then we cannot expect others to trust new experiences or new information about exercise that we provide to them. In order to address mindless exercise at a community level, it is first imperative to attain a shift in the individual's approaches to exercise. Expect resistance to debunking the myths such as "no pain, no gain", "more is better", "cardio is the best form of exercise," or "If I take a day off I will loss my fitness level." We cannot just tell others that these are myths; we have to actually practice and model something different

for them to observe directly. By working alongside others, it is possible to direct their attention to how their body moves and feels; and thus to how healthy, mindful exercise feels. In the case with participants, a disingenuous leader can be counterproductive to facilitating a new experience with exercise (see Calogero & Pedrotty, 2004) (#6I, 1G–13G).

Raise awareness about societal pressures to attain unrealistic body ideals and give permission to challenge these dangerous messages. Acknowledging and addressing the societal contexts that promote thinness and obsessive exercise is imperative. Practice critiquing sources of fitness information. If others choose to continue reading fitness magazines, encourage them to use a healthy filter. This may be difficult because a large portion of the information presented is focused on weight loss and achieving unrealistic body shapes. Remind them that the exercise tips and workout programs offered do not consider individual needs, especially if the individual struggles with an eating disorder. Individuals need to be aware that not all fitness professionals are trained to identify unhealthy patterns of exercise and/or eating disorders. Again, distinguishing between fact and fiction regarding exercise can help us make better choices for our bodies and minds (#7I, 8I).

Incorporate the elements described above into your program of activity. Expand the variety of activities that “count” as exercise. Remember – there is no “best” exercise, only what is best for us. Visiting parks, dancing, hiking, biking, walking, yoga, or just being outside, playing with children, or doing yard work constitute exercise. Attempt to create a program that is fun, and includes a variety of activities and other people. A mindful exercise program allows for the unexpected so “workouts” can be missed (#1G–10G). Plan rest days and stick to them! Rest is an essential component to a healthy exercise program. The guidelines put forth by the American College of Sports Medicine (ACSM) may provide a starting point if needed in regard to “appropriate” amounts of exercise, but remember that general guidelines cannot address specific exercise issues. These recommendations should be modified to fit the needs of the individual, especially in regard to what exercise activities bring the most pleasure (#1I, 3I, 4I, 6I, 8I, 9I, 1G–11G).

Identify triggering and non-triggering activities and environments. Triggers can be any number of people, places, or activities that lead individuals to mindlessly exercise. In these cases, the context needs to be changed. For example, if the gym triggers unhealthy exercise thoughts and behaviors, individuals should seek out other places for physical activity. These can be wide-ranging and include yoga studios, dance classes, playgrounds, games of kickball or softball, outdoor hikes, biking, sledding, playing with kids, gardening, or walking. Recess-like activities are less likely to be triggering. We cannot enjoy recess and simultaneously count calories or minutes or feel inadequate too – at least not very easily. For another example, if conversations about weight loss and obsessive exercising trigger negative thoughts, find other people to converse with and seek out alternate places to meet people who do not share this mindless mindset (#1I, 8I, 1G–13G).

Practice mindful exercise practices daily. Individuals will benefit from listening to their bodies before, during, and after exercise. This will help guide them toward what activities they want to do in the first place. Thoughts and feelings can be recorded in an exercise journal and utilized to determine if and how to exercise on any particular day. Individuals should also practice

avoiding comparison with others about exercise. Remember that focusing on others leads to minimizing one's own skills, achievements, and body's needs. Closing one's eyes can help redirect attention to the self and away from comparison with others. An emphasis should be placed consistently on redefining and re-experiencing exercise. Individuals should be encouraged to experiment with what activities make them feel good and to try new things (#2I, 5I, 8I, 10I, 5G, 9G, 10G).

Conclusion

"My whole life I have been used to killing myself. It feels so good to know I can stop."

This chapter extends previous conceptualizations of unhealthy exercise by incorporating the role of multiple contexts into the identification of unhealthy exercise. Furthermore, unhealthy exercise is recast as mindless exercise, with an emphasis on being outcome-oriented versus process-oriented in our approach to exercise. Considerable evidence exists demonstrating that mindless exercise can compromise physical and mental health. We may reduce these dangerous exercise patterns by (a) recognizing the contexts in which mindless exercise is fostered and challenge them, (b) redefining healthy exercise as mindful, and (c) re-experiencing exercise in a way that sustains the body and mind. Efforts toward increasing mindful approaches to exercise may reduce unhealthy exercise practices as well as improve health and exercise adherence across diverse groups and communities.

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