

The Psychological Benefits of Green Exercise

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Despite being a developed society, America's poor diet and fitness choices make it one of the unhealthiest countries in the world. Researchers consequently promote exercise, proclaiming its physical benefits as a major solution to obesity and other health issues. Paradoxically, though, many Americans still remain unmotivated to visit a gym or workout, despite the wealth of information they possess about the physical improvements of exercising. Amidst the overemphasized research on purely physical aspects lies a hidden element that many don't consider: the specific psychological benefits of exercise in an outdoor setting. It is generally accepted that both physical movement and presence in nature are inherently positive activities, but what happens when these two elements are combined? While many researchers contend that exercise may produce considerable physical improvements, that emphasis marginalizes the overwhelming psychological benefits attributed to outdoor activity and discourages those new to exercise from experiencing the holistic benefits of green exercise.

Researchers often overlook the psychological benefits of green exercise because the physiological differences between outdoor and indoor exercise are admittedly negligible, particularly in cardiovascular activities. Minor variances are to be expected; for example, runners experience minor physical differences when running on a flat surface versus uneven terrain. The motion of the foot stresses slightly different muscles and joints depending on the environment. Similarly, the cardiovascular differences are minute. A study comparing the physiological variances of two modes of running discovered that "there was no significant difference between trail and treadmill running for both heart rate and RPE [Rated Perceived Exertion]" among collegiate runners (Abramczak, et al., 2005, p. 27). This abundant research overemphasizes the physical differences, even though they are insignificant. A considerable amount of information exists regarding the psychological benefits of outdoor exercise; however, American society ignores evidence for the sake of grasping tangible research with visible outcomes. These physical benefits seem to be the chief motivator for people to exercise at all. Such an emphasis limits the term "healthy" to only the physical results of being fit and toned, rather than encompassing the mental benefits that should be included as well.

With an expanded definition of health, the psychological advantages of exercising outdoors take on a greater importance. Many are aware that being in nature yields positive feedback within our brains, thus explaining the recent movements to "opt outside". Physical activity continues to demonstrate its importance in society as well, being advertised everywhere as the solution for numerous physical and mental issues. As a result, "knowing that both physical activity and nature independently enhance health, the term *Green Exercise* was coined to signify the synergistic health benefits derived from being active in green or natural places" (Barton, et al., 2016, p. 26). This commendatory combination is clearly beneficial to overall health, particularly psychological well-being.

The enjoyment of green exercise, alongside the vast psychological benefits, has emerged as one of the most prominent advantages when compared to machines like treadmills. Regardless of the number of benefits it offers, any activity will likely be disregarded if people find it unenjoyable to participate in. People know that exercise will benefit them, but many find the activity unpleasant, choosing not to engage in it. A study examining the link between exercise environment and enjoyment levels reveals green exercise may be the solution for people who find physical activity bothersome. In one of the experiments, participants either exercised inside on a treadmill or outside on a brisk walk, with standard mood and enjoyment tests administered before and after the activity. The study recorded the participants experienced the most enjoyment when exercising outdoors (Plante et al., 2007). Under the assumption that both environments were equally as physically demanding, the increased enjoyment in the outdoor setting likely comes from the psychological advantages. Indoor gyms tend to exude an atmosphere of anxiety, competition, and confinement; whereas natural areas are inherently freeing, without judgment. Ultimately, people will enjoy their workout in the setting that they are most comfortable in – for most, that is nature.

In addition to enjoyment, green exercise improves self-esteem and mood immediately upon starting. One does not need to embark on a ten-mile hike to reap the benefits of green exercise; rather, research shows that mental improvements occur most effectively in short doses. In a study determining the best "dose" of green exercise, researchers Jo Barton and Jules Pretty concluded that mental health benefits would be apparent particularly in "those who are currently sedentary, nonactive, and/or mentally unwell [...] if they were able to undertake regular, short-duration physical activity in accessible green space" (Barton et al., 2010, p. 3951). Popular culture often pressures people into believing that in order to look and feel great, they must participate in lengthy, strenuous workouts daily. However, this study suggests that the psychological benefits of green exercise are attainable. Mood and self-esteem increased in only the first five minutes of outdoor activity, making green exercise an ideal alternative for less active people.

Evidently, green exercise has abundant psychological benefits; however, it is one's perception that initially drives these benefits. When people view an environment positively – rather than negatively – they are more likely to obtain its health benefits. A study for the *International Journal of Stress Management* explores this link between perception and green exercise using 112 college students. For twenty minutes, the students were assigned to either walk around campus, to watch a virtual campus tour while on a treadmill, or to watch a virtual campus tour without any exercise. After analyzing the mood and enjoyment tests administered before and after the experiment, the researchers found that "an outdoor exercise environment might be more enjoyable and energizing but not necessarily relaxing. [...] Because being outdoors creates a more scenic experience and provides fresh air and the sights, sounds, and smells of the outdoors; exercise may be more revitalizing" (Plante, et al., 2006, p. 116). While running on an indoor treadmill may feel methodical and mindless, resulting in relaxation, exercising outside requires the mind to be alert to its surroundings and creates stimulating energy that kickstarts heightened mood and self-esteem. As most people workout in the mornings, one conclusion that can be drawn is that people exercise in an attempt to energize and awaken their minds for the day, thus supporting the argument to engage in green exercise rather than indoor activity. Mental benefits can almost be guaranteed, so long as those participating in green exercise perceive the outside environment to be positive and enjoyable.

Often, people are unconscious of how they perceive an environment; subtle variances in exercise settings unknowingly contribute to the psychological advantages obtained, particularly those that appeal to the senses. For the *International Journal of Environmental Health Research*, a study investigates the effect of sensory experiences on exercise. Participants either rode on a cycling machine with their auditory, visual, and olfactory senses blocked, or rode on the same cycling machine under a simulation of an outdoor forest setting. The tests administered before and after the experiment indicated that the neglect of senses resulted in increased tension and tiredness, whereas the forest simulation produced opposite effects. Furthermore, the full-sensory conditions indicated a lower perceived exertion than the sensory-occluded conditions (Wooller, et al., 2015). As the natural environment occupies all five senses, it also invokes mindfulness, sharpens indirect attention, and consequently improves mental health. This subconscious sensory interaction in outdoor settings confirms that mental benefits of green exercise are mainly attributed to one's senses and perception. Still, people lack this vital knowledge about green exercise, leaving them to rely only on the physical benefits of exercise as motivation.

Despite these psychological motivations to incorporate green exercise into daily living, the majority of research concerning exercise focuses solely on the physical benefits and visible results. For experienced athletes, this knowledge only adds to their drive to exercise; however, for those less experienced, the pressure to look and perform a certain way proves to be intimidating. A study that explored the affective outcomes of exercising in outdoor and indoor settings found the psychological results for regular runners did not change significantly. However, the research suggests that the data may be different for more inactive participants, who might feel less comfortable inside a gym than regular runners (Turner, et al., 2017). Environmental factors notably influence new exercisers, but the life-changing potential offered by outdoor exercise is overlooked in the shadow of daunting physical expectations. Positive perception is vital to reaping the benefits of green exercise, but inactive people hesitate to try it when their preconceived notion toward exercise is negative.

For many, just the thought of going to a gym is unnerving. The term "gymtimidation" accurately describes the common embarrassment felt by those who feel unfit to work out publicly, so they resolve to not exercise at all. The sight of extremely fit people often lowers self-esteem and heightens the fear of judgment. Green exercise aids in lowering these psychological barriers, transforming exercise into an activity people learn to enjoy and desire. This natural alternative to gyms creates "more opportunities for exploration and discovery of natural stimuli," which reinforces the "intrinsic motives necessary for sustaining a physical activity routine" (Lacharite-Lemieux, et al., 2015, p. 738). Outdoor exercise is affordable, readily available, and provides a comforting environment for people to initiate an active lifestyle.

Green exercise is the ideal solution for less experienced, inactive people, providing substantial psychological improvements and increased energy. Outdoor activity breaks down the mental barriers created by the physical expectations from gyms and the overemphasis from researchers. The benefits of exercise and nature have previously been explored separately as advantageous to health; the combination of these two elements created green exercise, which offer the benefits of both. Unfortunately, this knowledge goes unnoticed by most Americans, wasting the potential results of green exercise. In order to cultivate a healthier lifestyle, people should incorporate outdoor activities into their daily lives to gain the holistic and psychological advantages green exercise has to offer.

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