

Fit Green Happy™ Annotated Bibliography

Azar, D., Ball, K., Salmon, J., & Cleland, V. (2008). The association between physical activity and depressive symptoms in young women: A review. *Mental Health and Physical Activity, 1*, 82-88. doi: 10.1016/j.mhpa.2008.09.004

Physical activity and happiness. This article explores the relationship between physical activity and depressive symptoms in women. Even small amounts of physical activity have been found to lower depressive symptoms in young women.

Barton, J., & Pretty, J. (2010). What is the best dose of nature and green exercise for improving mental health? A multi-study analysis. *Environmental Science & Technology, 44*(10), 3947-3955.

Nature and happiness. Physical activity and happiness. This study concluded that green exercise had immediate short term effects on mood and self-esteem. They noted that water spaces had a greater effect. This data can be used for therapeutic interventions in private practices, by health care providers, and by employers.

Benton, D. and Donohoe, R.T., (1999) "The effects of nutrients on mood". *Public Health Nutr.* 2(3A) 403-9.

Physical activity and fitness. Nutrition can impact mental health. Nutritional deficiencies can explain irregularity in our emotions.

Berger, B. (2004). Subjective Well-Being in Obese Individuals: The Multiple Roles of Exercise. *National Association for Physical Education in Higher Education, 56*, 50-76.

Barriers. Identifies exercise as a source of stress and therefore a barrier to fitness. It suggests to carefully design physical activity programs to reach obese populations to help them learn to enjoy the process of exercising. This article also defines the factors concomitant with the inactivity/obesity cycle such as anxiety, decreased energy, depression, fatigue, stress, and low self-esteem.

Berman, M. G., Kross, E., Krpan, K. M., Askren, M. K., Burson, A., Deldin, P. J., . . . Jonides, J.

(2012). Interacting with nature improves cognition and affect for individuals with depression. *J Affect Disord.*, *140*, 1-12.

Nature and happiness. This study found that people with major depressive disorder (MDD) experienced cognitive and affective improvements after walking in a natural environment. MDD is defined as having cognitive impairments, compromised working memory, and persistent negative moods. This study also discusses the benefits of attention restoration theory (ART), and how nature can be combined with this type of therapy. Evidence from this study also suggested that people with depressive symptoms may benefit more from the restorative effects of nature than healthy individuals.

Berto, R. (2005). Exposure to restorative environments helps restore attentional capacity.

Journal of Environmental Psychology, *25*, 249-259.

Nature and happiness. This study used the Sustained Attention to Response Test to explore the impacts of restorative (nature) and nonrestorative images on attentional capacity. It found that participants who viewed restorative images experienced an increase in attentional capacity.

Boehm, J., & Kubzansky, L. (2012). The heart's content: The association between positive psychological well-being and cardiovascular health. *Psychological Bulletin*, *655-691*.

Defining happiness. This study looked at the relationship between positive psychological well-being (PPWB), and cardiovascular disease (CVD). The article noted that the connection between mental health and physical health has been recognized for a long time. The study concluded that PPWB is directly related to cardiovascular health.

Brinkley, D. (2009). *The Wilderness Warrior*. New York, NY: HarperCollins.

Historical context. This Teddy Roosevelt biography focuses on his relationship with nature and protectionist actions throughout his political career. It is useful in giving insight into his appreciation for nature.

Chavez, K. (2015, September 11). Meet the new Smokies superintendent, Cassius Cash. *Citizen Times*. Retrieved from

<http://www.citizen-times.com/story/news/local/2015/09/03/meet-new-smokies-superintendent-cassius-cash/71638372/>

Implications. This news article looks at programs that the National Park Service has implemented to reach out to underrepresented populations.

Chawla, L., Keena, K., Pevec, I., & Stanley, E. (2014). Green schoolyards as havens from stress and resources for resilience in childhood and adolescence. *Health and Place, 28*, 1-13.

Nature and happiness. This study connects how stress, resilience, and contact with nature in school reduces stress and improves protective factors for resilience in children and adolescents. Research has found that children and adolescents experience health benefits, better physical activity and abilities, better social health, better mental health, reduced stress, and enhanced self-confidence. There have been more studies with adults that show that green spaces have physical and mental health benefits, but recent research on children have found that the results parallel studies completed with adults. Benefits for adolescents include, more energy, happiness, less stress, and less anger. Preschool children experience lower measures of forgetfulness and better listening. High school students have fewer criminal behaviors, significantly higher graduation rates, merit awards, and plans to attend college. Additionally gardening programs in schools increase the likelihood that children will eat fruits and vegetables, as well as improving science scores.

Choitz, P., Johnson, M., Berhane, Z., Lefever, G., Anderson, J., & Eiser, A. (2010). Urban fitness centers: removing barriers to promote exercise in underserved communities. *Journal Of Health Care For The Poor & Underserved, 21*(1), 221-228.

doi:10.1353/hpu.0.0239

Barriers. Two fitness center built in urban settings with low month to month rates in attempt to remove barriers such as cost, disability, inaccessibility, and safe locations. It started out strong, but experienced attrition rates increasing each month.

Cronon, W. (2003). *Changes in the land: Indians, colonists, and the ecology of New England*. New York, NY: Hill & Wang.

Historical context. In comparing European colonists' interactions with nature and

wilderness to those of the Native Americans, Cronon provides a nice commentary on how Native Americans' utilized the land and their relationship with nature.

Da Silva, M., Singh-Manoux, A., Brunner, E., Kaffashian, S., Shipley, M., Kivimäki, M., &

Nabi, H. (2012). Bidirectional association between physical activity and symptoms of anxiety and depression: The Whitehall II study. *European Journal of Epidemiology*, 27, 537-546.

Barriers. This article explores the association between physical activity and mental health issues. It argues for the existence of a bidirectional relationship – physical activity lowers risk for anxiety and depressive symptoms; however, these mental health issues can also put individuals at risk of not partaking in the benefits of fitness.

Deloria, V. (1970). *We talk, you listen: New tribes, new turf*. New York, NY: University of Nebraska Press.

Historical context. This includes a Sioux Indian's perspective of how Native Americans interacted (and continue to interact) with the land.

Diener, E., & Chan, M. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being*, 3, 1-43.

Defining happiness. Subjective well-being (SWB) includes optimism, low anger, and work satisfaction. This article discussed how there is evidence that concludes that SWB influences health and longevity. Positive psychological well-being has also been found to lower mortality in both healthy and diseased individuals.

Diener, E., & Scollon, C. (2014). The what, why, when, and how of teaching the science of subjective well-being. *Teaching of Psychology*, 41(2), 175-183. doi: 10.1177/0098628314530346.

Defining happiness. This article defines subjective well-being and explores reasons why happiness is important, including its positive impact on health.

Diener, E., Heintzelman, S. J., Kushlev, K., Tay, L., Wirtz, D., Lutes, L. D., & Oishi, S. (2016).

Findings all psychologists should know from the new science on subjective well-being.

Canadian Psychology/Psychologie Canadienne,

doi:<http://dx.doi.org.proxy.lib.utk.edu/90/10.1037/cap0000063>

Defining happiness. Describes Subjective well-being with regard to organizational psychology, culture, benefits, and interventions. Discusses factors that affect long-term subjective well-being.

Emerson, R.W. (1990). *Selected essays, lectures, and poems*. New York, NY: Bantam Classics.

Historical context. This source, along with the Emerson essays mentioned below, provides.

Emerson, R. W. (2003). *Nature and selected essays*. New York, NY: Penguin Classics.

Estabrooks, P., Lee, R., & Gyuresik, N. (2003). Resources for physical activity participation:

Does availability and accessibility differ by neighborhood socioeconomic status? *Annals of Behavioral Medicine*, 25(2), 100-104.

Barriers. This study uses census data from one Midwestern city to categorize neighborhoods according to their income level. It then uses information obtained through Internet sources, school officials, and the parks department to explore how accessibility to physical activity resources differs among neighborhoods.

Feng, W., Orpana, H. M., Morrison, H., de Groh, M., Dai, S., & Wei, L. (2012). Long-term

Association Between Leisure-time Physical Activity and Changes in Happiness: Analysis of the Prospective National Population Health Survey. *American Journal Of*

Epidemiology, 176(12), 1095-1100. doi:[aje/kws199](https://doi.org/10.1093/aje/kws199)

Physical activity and happiness. They measured long-term physical activity and changes in unhappiness and suggest a long-term association between the two. However, happiness is a self-generalized evaluation and activity levels were self-reported. All they claim is

that there might be a decrease in likelihood of future unhappiness.

Frost, J. (1849). *The life of William Penn: The founder of Pennsylvania*. Philadelphia, PA:

Lindsay and Blakiston.

Historical context. This includes commentary on Penn's relationship with nature and protection efforts within Philadelphia.

Gelter, H. (2000). Friluftsliv: The Scandinavian philosophy of outdoor life. *Canadian Journal of Environmental Education*, 5, 77-92.

Nature and happiness. This article discusses the history of Friluftsliv in Scandinavian countries, which translates to, "free air life." This is a philosophical lifestyle based on "experiences of the freedom in nature and the spiritual connectedness with the landscape." This philosophy has been reflected throughout Scandinavian history, dating back to the 18th century during a nature movement. The upper class did not have a relationship to nature like the lower classes did because they did not hunt, fish, or farm. Friluftsliv became a romanticism ideal to reconnect with nature and the old Scandinavian outdoor tradition. Later, Friluftsliv was used during wartime to, "foster strong people for defense." In more recent times, Friluftsliv is a Swedish outdoor organization whose goals are to foster good health through outdoor nature experiences.

Greaney, M., Less, F., White, A., Dayton, S., Riebe, D., Blissmer, B., Shoff, S., Walsh, J., &

Greene, G. (2009). College students' barriers and enablers for healthful weight management: A qualitative study. *Journal of Nutrition Education and Behavior*, 41(4), 281-286.

Barriers. This article examines the barriers to physical activity cited by college students.

Haluza, D., Schonbauer, R., & Cervinka, R. (2014). Green perspectives for public health: A

narrative review on the physiological effects of experiencing outdoor nature.

International Journal of Environment Research and Public Health, 11, 5445-5461.

Nature and happiness. This article discusses how natural environments restore well-being, and how natural environments have restorative stress-recovery in terms of allostatic load (allostatic load is the wear and tear on the body caused by repeated or

chronic stress). Additionally, leisure time in natural and/or green environments has many health benefits, including a positive effect on disease prevalence and lower mortality rates. Physical activity in green spaces is a great resource for reducing stress, lowering burnout syndrome, obesity, and heart conditions. Shinrin-Yoku was also discussed as having additional psychological parameters that can add to the benefits of being outdoors.

Hamer, M., & Stamatakis, E. (2010). *Mental Health and Physical Activity*, 3, 67-71. doi:

10.1016/j.mhpa.2010.09.001

Physical activity and happiness. This article identifies some links between physical activity and improved health. It also highlights some connections to psychological well-being.

Hartig, T., Evans, G. W., Jamner, L. D., Davis, D. S., & Gärling, T. (2003). Tracking restoration in natural and urban field settings. *Journal of Environmental Psychology*, 23(2), 109-123.

Retrieved from

<http://proxy.lib.utk.edu:90/login?url=http://search.proquest.com.proxy.lib.utk.edu:90/docview/620104717?accountid=14766>

Nature and happiness. They suggest that an inability to periodically renew one's capacity to focus may impair work performance and interpersonal relations. Environmental strategies for health promotion that improve opportunities for restoration can offset limitations of individual-based behavioral change approaches and they complement approaches focused on mitigating stressor exposure. For example, they found that blood pressure decreased in individuals that went into a windowed room, but increased in people who went to a room without windows.

Holliday, J.S. (1984). The politics of John Muir. *California History*, 63, 135-139.

Historical context. This article gives insight into Muir's relationship with nature and his protectionist approach.

Izenstark, D., Oswald, R., Holman, E., Mendez, S., & Greder, K. (2016). Rural, low-income mothers' use of family-based nature activities to promote family health. *Journal of*

Leisure Research, 48(2), 134-155.

Barriers. This study explores the barriers to nature activities cited by rural mothers.

Kaplan, R. (1993). The role of nature in the context of the workplace. *Landscape and Urban Planning*, 26, 193-201.

Nature and happiness. This article explores studies which look at the impact of windows in the workplace. It found that the presence of a view which includes some limited nature scenes provide increased attentional restoration.

Kaplan, S. (1995). The restorative benefits of nature: toward an integrative framework. *Journal of Environmental Psychology*, 15, 169-182.

Nature and happiness. This article discussed the benefits of nature, and how nature has the ability to restore attentional capacities.

Kelley, D. (1986). Friends and nature in America: Toward an eighteenth-century Quaker ecology. *Pennsylvania History*, 53, 257-272.

Historical context. This article examines Quakers' relationship with nature and gives important insight into the value they found in wilderness.

Kemper KJ, Shannon S. (2007). Complementary and alternative medicine therapies to promote healthy moods. *Pediatr Clin North Am*. 54(6), 901–26.

Physical activity and happiness. Nutrition's impact on mental health. They found that nutritional therapies can help promote positive mental health and happy moods. Nutrient rich foods can be responsible for the production of neurotransmitters that affect mood.

Kruger, J., Carlson, S., & Kohl, H. (2007). Fitness facilities for adults: Differences in perceived access and usage. *American Journal of Preventive Medicine*, 32(6), 500-505.

Barriers. This article explores the idea of perceived access and the impact it has on physical activity among individuals. Its findings indicate that increased access to fitness facilities is significantly associated with increased physical activity.

Lampinen, P., Heikkinen, R., & Ruoppila, I. (2000). Changes in intensity of physical exercise as predictors of depressive symptoms among older adults: An eight-year follow-up. *Preventive Medicine: An International Journal Devoted to Practice and Theory*, 30(5), 371-380.

Physical activity and happiness. Studied depressive symptoms in older adult Finnish men and women. The longitudinal study determined that a decrease in regular physical activity may be related to an increase in depressive symptoms over time.

Lascar, N., Kennedy, A., Hancock, B., Jenkins, D., Andrews, R., Greenfield, S., & Narendran, P. (2014). Attitudes and barriers to exercise in adults with type 1 diabetes (T1DM) and how best to address them: A qualitative study. *PLOS ONE*, 9(9), 1-8.

Barriers. This study explores barriers to exercise cited by patients with type 1 diabetes.

Lehnert, K., Sudeck, G., & Conzelmann, A. (2012). Subjective well-being and exercise in the second half of life: A critical review of theoretical approaches. *European Group for Research into Elderly and Physical Activity*, 9, 87-102.

Physical activity and happiness. Research shows that you generally, “feel better,” after exercising. This study did not come to any definite conclusions, but it did discuss how mental health and well-being are, “likely,” to work in a synergistic way to make people feel better. (Not a strong article)

Lindwall, M., Ljung, T., Hadžibajramović, E., & Jonsdottir, I. H. (2012). Self-reported physical activity and aerobic fitness are differently related to mental health. *Mental Health and Physical Activity*, 5(1), 28-34.

Physical activity and happiness. Self-reported physical activity significantly related to mental health with no such association between mental health and aerobic activity.

MacKerron, G., & Mourato, S. (2013). Happiness is greater in natural environments. *Global Environmental Change*, 23(5), 992-1000.

Nature and happiness. This study used a phone app to collect data throughout the day using GPS and controlled for weather, daylight, companionship, location type, and time of day. They found that the participants are significantly and substantively happier outdoors in all green or natural habitat types than they are in urban settings. However, a limitation with this study is that people generally choose environments and activities based on mood. Additionally, participants were iPhone users who tend to be younger, richer, and more likely to be in education or employment.

Mausner, C. (1996). A kaleidoscope model: defining natural environments. *Journal of Environmental Psychology*, 16, 335-348.

Nature and happiness. This article discussed how there is not a clear definition of what a natural environment is. Different fields have varying definitions of what they consider to be a natural environment; some consider only wilderness areas that are relatively untouched by man to be natural, while others may consider a park in an urban area to be a natural environment. The study concluded by stating that defining what makes a natural environment is complex, and that further research on this topic is needed.

Muir, J. (1890). Features of the proposed Yosemite National Park. *The Century Magazine*, 40, 656-667.

Historical context. This essay, along with the four following Muir sources, clearly illustrates Muir's perspective that nature and its restorative effects are something to be valued and protected.

Muir, J. (1897, August 1). The American forests. *The Atlantic Monthly*, 80, 145-156.

Muir, J. (1920, January). Save the redwoods. *Sierra Club Bulletin*, 11, 1-4.

Muir, J. (1996). *John Muir: His life and letters and other writings*. W. F. Badè (Ed.). Seattle, WA: The Mountaineers Books.

Nash, R. (1963). The American wilderness in historical perspective. *Forest History Newsletter*, 4, 2-13.

Historical context. Great commentary on Transcendentalists' relationship with nature and idea of the presence of divine within it.

Nash, R. (1967). *Wilderness and the American mind*. New Haven, CT: Yale University Press.

Historical context. Nice overview of changing perspectives about nature throughout early American history.

Oishi, S., & Diener, E. (2014). Can and should happiness be a policy goal? *Policy Insights from the Behavioral and Brain Sciences*, 1(1), 195-203. doi: 10.1177/2372732214548427

Defining happiness. This article argues for consideration of well-being in policy making and for periodic evaluations of policies to determine whether they are having their intended effect.

Park, B. J., Tsunetsugu, Y., Kasetani, T., Kagawa, T., & Miyazaki, Y. (2010). The physiological effects of Shinrin-yoku (taking in the forest atmosphere or forest bathing): Evidence from field experiments in 24 forests across Japan. *Environmental Health Preventative Medicine*, 15, 18-26.

Nature and happiness. Shinrin-Yoku is a term meaning, "forest bathing," that was coined in 1982 by the Japanese Ministry of Agriculture when the realization that coming into contact with nature improves mental and physical relaxation. This article discussed how urban settings increase stress, and how natural environments can increase health. Forest environments lower concentrations of cortisol, lower pulse rate, lower blood pressure, increase parasympathetic nerve activity, lower sympathetic nerve activity as compared to urban settings. One study that the article discussed found that blood glucose levels lowered when diabetic patients took a walk in a forest. Additionally, the article discusses how, "forest medicine," could be developed as a measure of preventative medicine technique.

Park, N., Peterson, C., Szvarca, D., Vander Molen, R. J., Kim, E. S., & Collon, K. (2016).

Positive Psychology and Physical Health Research and Applications. *American Journal of Lifestyle Medicine*, 10(3), 200-206.

Physical activity and happiness. Since positive psychology is still fairly new, its link to good physical health is not established. Positive psychology health assets identified by this team include positive emotions, optimism and positive relationships, are prospectively associated with good health, though they do not claim causality.

Penn, W. (1901). *Some fruits of solitude in reflections & maxims*. London, UK: Freemantle & Co.

Historical context. Provides insight in Penn's views on nature and includes a great quotation about his preference for being in nature and the opportunity it provides for "contemplation."

Phillips, W. T., Kiernan, M., & King, A. C. (2003). Physical activity as a nonpharmacological treatment for depression: A review. *Complementary Health Practice Review*, 8(2), 139-152.

Physical activity and happiness. Used to critique the Lampinen, P., Heikkinen, R., & Ruoppila, I. article.

Physical Activity and Health. (2015, June 04). Retrieved February 09, 2017, from

<https://www.cdc.gov/physicalactivity/basics/pa-health/>

Physical Activity and Happiness. Used to understand the federal recommendations for dosage of physical activity and its relation to mental health.

Pressman, S., & Cohen, S. (2005). Does positive affect influence health? *Psychological Bulletin*, 131, 925-971.

Defining happiness. This article investigated studies that used measures that contain items that assess with positive affect (PA). Higher levels of health PA have been shown to be correlated with better health behaviors, such as improving sleep quality. PA has also been shown to alter a person's disease susceptibility. Additionally, PA was found to help

individuals recover from stress-related activation.

Roosevelt, T. (1905). *Outdoor pastimes of an American hunter*. New York, NY: Charles

Scribner's Sons.

Historical context. This book, along with the following Roosevelt sources, provides insight in Roosevelt's relationship with nature.

Roosevelt, T. (1913). *An autobiography*. New York, NY: Charles Scribner's Sons.

Roosevelt, T. (1915, January 6). John Muir: An appreciation. *Outlook Magazine*, 109, 27-28.

Sabatini, F. (2014). The relationship between happiness and health: Evidence from Italy. *Social*

Science & Medicine, 114, 178-187.

Defining happiness. This article discusses how the automatic nervous system (ANS) is the main channel of transmission for the effects of happiness on health. The study found that well-being positively impacts health outcomes, and that healthy people are more likely to live in a healthy way, meaning that they engage in more sports, watch their weight, avoid unhealthy behaviors (such as drinking, smoking, and overeating), and are less likely to commit suicide. The study concluded that, "happiness was found to be the best predictor of health in all stages of the analysis."

Schrop, S., Pendleton, G., Gil, K., Stockton, L., McNatt, J., & Gilchrist, V. (2006). The

medically underserved: Who is likely to exercise and why? *Journal of Health Care for*

the Poor and Underserved, 17(2), 276-289. <https://doi.org/10.1353/hpu.2006.0069>.

Barriers. This study examines barriers to fitness, as well as interventions which promote healthy changes

Seefeldt, V., Malina, R., & Clark, M. (2002). Factors affecting levels of physical activity in

adults. *Sports Med*, 32(3), 143-168.

Barriers. This article examines the barriers to fitness among adults and discusses different

relevant theories to understanding these barriers.

Shea, J., & Beausoleil, N. Breaking down 'healthism': barriers to health and fitness as identified by immigrant youth in St. John's, NL, Canada. *Sport, Education and Society*, 17(1), 97-112. <http://dx.doi.org/10.1080/13573322.2011.607914>

Barriers. This article explores some of the barriers to fitness for individuals. It uses focus groups of immigrants to gain a better understanding of these barriers, which include self-esteem, gender, socioeconomic status, limited opportunities, time, stress, etc.

Suzuki, W. (2011, December). *Wendy Suzuki: Exercise and the brain* [Video file]. Retrieved from <https://www.youtube.com/watch?v=LdDnPYr6R0o>

Physical activity and happiness. Neurological explanation of how mental health is impacted from physical activity through the release of neurotransmitters responsible for mood. Additionally, the video provided a firsthand account of how Suzuki benefited from incorporated regular exercise into her routine.

Teychenne, M., Ball, K., & Salmon, J. (2008). Physical activity and likelihood of depression in adults: A review. *Preventive Medicine*, 46, 397-411. doi: 10.1016/j.ypmed.2008.01.009

Physical activity and happiness. This article explores the association between physical activity and reduced risks of depression. It found that even 20-60 minutes of exercise a week can lower depression.

Thoreau, H.D. (1857). *The writings of Henry David Thoreau: Journal*. New York, NY: Houghton Mifflin.

Historical context. These writings, along with Thoreau writings listed below, are a great source to explore some of Thoreau's thoughts about nature, including his belief that it possessed restorative properties.

Thoreau, H. D. (1910). *Walden*. New York, NY: Crowell & Co.

Thoreau, H.D. (2007). *Walking*. Rockville, MD: Arc Manor.

Whitelaw, S., Teuton, J., Swift, J., & Scobie, G. (2010). The physical activity – mental wellbeing association in young people: A case study in dealing with a complex public health topic using a ‘realistic evaluation’ framework. *Mental Health and Physical Activity*, 3, 61-66.
doi: 10.1016/j.mhpa.2010.06.001

Barriers. This article complicates the one-dimensional link between physical activity and happiness. It calls for a broader approach and examination of barriers which could inhibit this connection for individuals.

Yancey, A., McCarthy, W., Harrison, G., Wong, W. K., Siegel, J., & Leslie, J. (2006).

Challenges in improving fitness: Results of a community-based, randomized, controlled lifestyle change intervention. *Journal of Women’s Health*, 15, 412-429.

Barriers. This article discusses a fitness intervention for African American women and examines the outcomes.

Yiğİter, K. (2014). The effects of participation in regular exercise on self-esteem and hopelessness of female university students. *Social Behavior and Personality*, 42(8), 1233–1243.

Physical activity and happiness. The study demonstrates an increase in self-esteem, psychological well-being, and hopelessness in female college students after completing a 12 week regular exercise program.

Yousefian, A., Ziller, E., Swartz, J., & Hartley, D. (2009). Active living for rural youth:

Addressing physical inactivity in rural communities. *Journal of Public Health Management and Practice*, 15(3), 223-231.

Barriers. Explores the barriers to fitness perceived by rural youth.