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Executive Summary

As many Asian nations rapidly urbanise, governments and policy-makers are having to deal with the negative impacts of urbanisation on population mental health. One cost-effective way of promoting population psychological well-being is through nature experiences, or exposure to natural environments. Studies consistently show that nature experiences are associated with benefits for mental health. Here, I show that exposure to natural environments is also associated with more positive body image, beyond benefits to mental health more generally. I review the evidence from cross-sectional, prospective, and experimental fieldwork showing that spending time in natural environments is associated with healthier body image, while acknowledging that much of this work has been conducted in the Global North. Such findings highlight the importance of ensuring that all citizens have easy access to natural environments, particularly in increasingly urbanised Asian nations where town planning and greenspace requirements are often at odds. There is now an urgent need for authorities to protect ecological assets, such as remnant forest patches, as well the provision of, and access to, natural environments.

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How Being in Nature Can Promote Healthier Body Image

In the early 1980s, the Forest Agency of Japan began advising people to immerse themselves in forests to improve their health. The practice was called *shinrin-yoku* or forest-bathing, and it was believed to lower stress¹ – although that had not been proven. Since then, a large body of evidence has shown that forest-bathing is associated with a range of benefits for human mental health² and the therapeutic benefits of *shinrin-yoku* are widely documented in Asian countries.³⁻⁴ In fact, research has shown that all manner of nature experience is associated with benefits for mental health, including lower rates of depression, anxiety, and stress, as well as speedier recovery from mental ill-health.⁵⁻¹⁰ The body of evidence supporting these associations is broad, from cross-sectional and longitudinal studies showing that population mental health is associated with proximity to nature to experimental fieldwork showing that nature experiences are associated with improvements in mental health, mood, and affect.⁵⁻¹⁰

Much of this work has been conducted in the Global North, but their implications for population psychological well-being in Asia are clear. All over Asia, urbanisation and the growth of cities is occurring at unprecedented rates. In the 50 years between 1965 and 2015, Asia's urban population increased from 430 million to 2.1 billion, and nearly one-half of all people in Asia now live in cities.¹¹ Although urbanisation provides opportunities for prosperity, employment, education, and cultural advancement¹², it is also associated with negative impacts on mental health, including greater symptoms of depression, psychosis, anxiety, and mood disorders¹³⁻¹⁴. Moreover, much of the urban expansion in Asia has been unplanned and urban green-space (i.e., any vegetated area within an urban space, such as parks, community woodlands, wetlands, and city farms) is

being depleted at a rapid pace.¹⁵ This means that many Asian populations now have decreased access to nature, particularly as urban populations spend more time indoors and on screens, and less time pursuing outdoor recreational activities.¹⁶

Nature and Body Image

Rapid urbanisation and the depletion of urban green-spaces in Asia is important, not only because of the wealth of evidence linking nature experiences with improved mental health in general, but also because of specific psychological outcomes that have received limited attention. One such psychological outcome is body image, which refers to a multifaceted construct including one's thoughts, feeling, beliefs, and behaviours related to the body.¹⁷⁻¹⁸ As Asian countries rapidly urbanise, modernise, and Westernise, negative body image has emerged as a major public health concern.¹⁹ For example, surveys have shown that the majority of respondents in many Asian cities experience forms of negative body image²⁰⁻²¹. In Malaysia, for example, one study of 2,050 adolescents reported that 87 per cent were dissatisfied with their body shape.²² Such findings are important because negative body image is one of the most important predictors of the onset and maintenance of disordered eating,²³ including in Asia where rates of disordered eating are now comparable to rates in Europe and North America²⁴⁻²⁵. Negative body image is also associated with poorer psychological functioning,²⁶ discomfort with sexual behaviour,²⁷ and poorer psychological well-being²⁸.

These negative outcomes make it important to identify ways of promoting healthier body image experiences²⁹ – and nature exposure may be beneficial here. For example, studies have shown that greater self-reported

nature exposure is associated with more positive body image in European and North American respondents.³⁰⁻³³ Other studies have shown that, when participants spend time nature – such as in parks and botanic gardens – they experience more positive body image as a result.³⁴⁻³⁵ For instance, one study conducted in Malaysia found that participants who went on jungle hike or spent time at a beach experienced improved positive body image.³⁶ However, these studies were either cross-sectional or did not include control conditions, which makes it difficult to assess causal relationships. Fortunately, experimental fieldwork has shown that, when participants were asked to go for a walk in a natural environment, they experienced improvements in positive body image. There was no improvement in body image when participants went for a walk in an urban environment.³⁵

Experiencing these positive effects on body image does not necessarily require exposure to real nature. For example, several studies have shown that exposure to images of natural environments produced improvements in body image.³⁵ The boost in terms of body image when viewing these images was not as strong as that experienced from being in real nature, possibly because static images offer only limited representations of real environments. Other relevant research has shown that exposure to a brief film of a first-person walk in a nature similarly improved body image, to a comparable degree to real nature.³⁷⁻³⁸ The use of “isomorphic nature” – stimuli that mimic real nature exposure – may be potentially useful for populations that have limited access to real nature or who are less mobile,³⁸ but it should be noted that this research is currently limited to populations from Europe.

Explaining the Impact of Nature on Body Image

Exposure to natural environments – whether real or isomorphic – offers a novel way of promoting healthier body image but, before we can fully capitalise on benefits, we will need to better understand what causes these changes. One explanation draws on Attention Restoration Theory,³⁹⁻⁴⁰ which suggests that “restorative settings” like nature can help in the recovery of depleted psychological and physiological resources, which in turn changes negative states to positive ones. Drawing on Attention Restoration Theory, some scholars have suggested that being in nature may help to restrict negative appearance-related thoughts, supports speedier recovery from threats to body image, and shifts attention away from what the body looks like to what the body can do.³¹ In other words, natural environments may help individuals to distance themselves physically and mentally from social contexts that are appearance-focused, while also promoting holistic self-care attitudes that include greater respect, appreciation, and love for one’s body.³¹⁻³²

While these explanations focus on possible direct effects, it is also possible that there are multiple pathways – some direct and some indirect – that explain the benefits of nature exposure on body image. For example, one possibility is that natural environments provide opportunities for “cognitive quiet” – rumination that does not require effortful attention, such as when we watch the sun setting or listen to water running in a stream. This, in turn, may provide the space for a more self-compassionate mindset that, in turn, promotes healthier body image.³¹ Another possibility is that spending time in nature helps to promote greater connectedness to nature, or a sense of oneness with nature. Greater connectedness to nature may then help develop greater respect and appreciation for our bodies as part of a wider

ecosystem requiring protection.^{32-33,41} Yet another possibility is that spending time in nature is associated with greater mindfulness, which may promote healthier body image.³³ Although these theories of the relationship between nature exposure and body image remain in early stages of explication, it is becoming increasingly clear that nature is beneficial to psychological well-being because of its restorative effects and that those effects extend to body image specifically.

Policy Implications

Spending time in nature is a simple and cost-effective way of promoting more positive body experiences, quite aside from better physical and mental health more generally. Of course, this means that everyone should have easy access to natural or designed greenspaces, particularly in increasingly urbanised Asian nations where town planning and greenspace requirements are often at odds. In Southeast Asia, for example, cities with higher population densities have less green-space and less green-space per capita – this is particularly the case in larger and less wealthy cities.⁴² In these and other Asian cities, there is now an urgent need for authorities to protect ecological assets, such as remnant forest patches, as well the provision of, and access to, natural environments. A lack of urban nature can have implications for mental health, including in terms of body image; conversely, the protection of natural environments and careful consideration of the structure, location, and composition of urban living offers wide-ranging benefits for individuals, local communities, and national economies.

References

1. Hansen, M. M., Jones, R., & Tocchini, K. (2017). Shinrin-yoku (forest bathing) and nature therapy: A state-of-the-art review. *International Journal of Environmental Research and Public Health*, 14(8), 851.
2. Chun, M. H., Chang, M. C., & Lee, S. (2017). The effects of forest therapy on depression and anxiety in patients with chronic stroke. *International Journal of Neuroscience*, 127(3), 199-203
3. Han, J., Choi, H., Jeon, Y., Yoon, C., Woo, J., & Kim, W. (2016). The effects of forest therapy on coping with chronic widespread pain: Physiological and psychological differences between participants in a forest therapy program and a control group. *International Journal of Environmental Research and Public Health*, 13(3), 255.
4. Song, C., Ikei, H., & Miyazaki, Y. (2016). Physiological effects of nature therapy: A review of the research in Japan. *International Journal of Environmental Research and Public Health*, 13(8), 781.
5. Bowler, D. E., Buyung-Ali, L. M., Knight, T. M., & Pullin, A. S. (2010). A systematic review of the evidence for the added benefits to health of exposure to natural environments. *BMC Public Health*, 10, 456.
6. Collado, S., Staats, H., Corraliza, J. A., & Hartig, T. (2017). Restorative environments and health. In O. Navarro, G. Fleury-Bahi, & E. Pol (Eds.), *Handbook of environmental psychology and quality of life research* (pp. 127-148). Springer.
7. Frumkin, H., Bratman, G. N., Breslow, S. J., Cochran, B., Kahn Jr., P. H., Lawler, J. J., Levin, P. S., Tandon, P. S., Varanasi, U., Wolf, K. L., & Wood, S. A. (2017). Nature contact and human health: A research agenda. *Environmental Health Perspectives*, 125(7), 075001
8. Hartig, T., Mitchell, R., de Vries, S., & Frumkin, H. (2014). Nature and health. *Annual Review of Public Health*, 35, 207-228.
9. Kondo, M. C., Jacoby, S. F., & South, E. C. (2018). Does spending time outdoors reduce stress? A review of real-time stress response to outdoor environments. *Health and Place*, 51, 136-150.
10. van den Bosch, M., & Bird, W. (Eds.). (2018). *Oxford textbook of nature and public health: The role of nature in improving the health of a population*. Oxford University Press.
11. United Nations. (2014). World urbanization prospects: The 2014 revision. <https://esa.un.org/unpd/wup>

12. Kareiva, P., Tallis, H., Ricketts, T. H., Daily, G. C., & Polasky, S. (2011). *Natural capital: Theory and practice of mapping ecosystem services*. Oxford University Press.
13. Goldberg, D., & Thornicroft, G. (Eds.) (1998). *Mental health in our future cities*. Psychology Press.
14. Penkalla, A. M., & Kohler, S. (2014). Urbanicity and mental health in Europe: A systematic review. *European Journal of Mental Health*, 9(2), 163-177.
15. Bawa, K. S., Koh, L. P., Lee, T. M., Liu, J., Ramakrishnan, P. S., Yu, D. W., Zhang, Y., & Raven, P. H. (2010). China, India, and the environment. *Science*, 327, 1357-1459.
16. Bratman, G. N., Anderson, C. B., Berman, M. G., Cochran, B., de Vries, S., Flanders, J., Folke, C., Frumkin, H., Gross, J. J., Hartig, T., Kahn, Jr., P. H., Kuo, M., Lawler, J. J., Levin, P. S., Lindahl, T., Meyer-Lindenberg, A., Mitchell, R., Ouyang, Z., Roe, J., ... Daily, G. C. (2019). Nature and mental health: An ecosystem service perspective. *Science Advanced*, 5(7), eaax0903.
17. Cash, T. F., & Pruzinsky, T. (Eds.) (2002). *Body image: A handbook of theory, research, and clinical practice*. Guilford.
18. Cash, T. F., & Smolak, L. (Eds.) (2011). *Body image: A handbook of science, practice, and prevention*. Guilford.
19. Swami, V. (2015). Cultural influences on body size ideals: Unpacking the impact of Westernization and modernization. *European Psychologist*, 20, 44-51.
20. Swami, V., Frederick, D. A., Aavik, L., Alcalay, J., Allik, D., Anderson, S., Andrianto, S., Arora, A., Brännström, Å., Cunningham, J., Danel, D., Doroszewicz, K., Forbes, G. B., Furnham, A., Greven, C. A., Halberstadt, J., Hao, S., Haubner, T., Hwang, C. S., ... & Zivcic-Becirevic, I. (2010). The attractive female body weight and female body dissatisfaction in 26 countries across 10 world regions: Results of the International Body Project I. *Personality and Social Psychology Bulletin*, 36, 309-325.
21. Swami, V., Tran, U. S., Barron, D., Afhami, R., Aimé, A., Almenara, C. A., Alp Dal, N., Amaral, A. C. S., Andrianto, S., Anjum, G., Argyrides, M., Atari, M., Aziz, M., Banai, B., Borowiec, J., Brewis, A., Cakir Kocak, Y., Campos, J. A. D. B., Carmona, C., ... Voracek, M. (2020). The Breast Size Satisfaction Survey: Breast size dissatisfaction and its antecedents and outcomes in women from 40 countries. *Body Image*, 32, 199-217.
22. Khor, G. L., Zalilah, M. S., Phan, Y. Y., Ang, M., Maznah, B., & Norimah, A.K. (2009). Perceptions of body image among Malaysian male and female adolescents. *Singapore Medical Journal*, 50(3), 303-311.

23. Stice, E., & Shaw, H. E. (2002). Role of body dissatisfaction in the onset and maintenance of eating pathology: Synthesis of research findings. *Journal of Psychosomatic Research*, 53, 985-993.
24. Thomas, J. J., Sing, L., & Becker, A. E. (2016). Updates in the epidemiology of eating disorders in Asia and the Pacific. *Current Opinion in Psychiatry*, 29(6), 354-362.
25. Pike, K. M., & Dunne, P. E. (2015). The rise of eating disorders in Asia: A review. *Journal of Eating Disorders*, 3, 33.
26. Cash, T. F., Thériault, J., Annis, N. M. (2004). Body image in an interpersonal context: Adult attachment, fear of intimacy, and social anxiety. *Journal of Social and Clinical Psychology*, 23, 89-103.
27. Woertman, L., & van den Brink, F. (2012). Body image and female sexual functioning and behavior: A review. *Journal of Sex Research*, 49, 184-211.
28. Swami, V., Weis, L., Barron, D., & Furnham, A. (2018). Positive body image is positively associated with hedonic (emotional) and eudaimonic (psychological and social) well-being in British adults. *Journal of Social Psychology*, 158, 541-552.
29. Guest, E., Costa, B., Williamson, H., Meyrick, J., Halliwell, E., & Harcourt, D. (2019). The effectiveness of interventions aiming to promote positive body image in adults: A systematic review. *Body Image*, 30, 10-25.
30. Mitten, S., & D'Amore, C. (2018). The nature of body image: The relationship between women's body image and physical activity in natural environments. In D. A. Vakoch & S. Mickey (Eds.), *Women and nature? Beyond dualism in gender, body, and environment* (pp. 96-116). Routledge.
31. Swami, V., Barron, D., Hari, R., Grover, S., Smith, L., & Furnham, A. (2019). The nature of positive body image: Examining associations between nature exposure, self-compassion, functionality appreciation, and body appreciation. *Ecopsychology*, 11(4), 243-253.
32. Swami, V., Barron, D., Weis, L., & Furnham, A. (2016). Bodies in nature: Associations between exposure to nature, connectedness to nature, and body image in U.S. adults. *Body Image*, 18, 153-161.
33. Swami, V., Barron, D., Todd, J., Horne, G., & Furnham, A. (2020). Nature exposure and positive body image: (Re-)examining the mediating roles of connectedness to nature and trait mindfulness. *Body Image*. In press.
34. Swami, V. (2020a). Body image benefits of allotment gardening. *Ecopsychology*, 12(1), 19-23.

35. Swami, V., Barron, D., & Furnham, A. (2018). Exposure to natural environments, and photographs of natural environments, promotes more positive body image. *Body Image, 24*, 82-94.
36. Swami, V., Mohd. Khatib, N. A., Vidal-Mollón, J., Vintila, M., Barron, D., Goian, C., Mayoral, O., Toh, E. K. L., Tudorel, O., Vazirani, S., & Zahari, H. S. (2020). Visits to natural environments improve state body appreciation: Evidence from Malaysia, Romania, and Spain. *Ecopsychology, 12*(1), 24-35.
37. Swami, V., Pickering, M., Barron, D., & Patel, S. (2018). The impact of exposure to films of natural and built environments on state body appreciation. *Body Image, 26*, 70-73.
38. Swami, V. (2020). Impact of exposure to films of natural and built environments on body image in older adults. In N. Columbus (Ed.), *Advanced in psychology research*. Hauppauge, NY: Nova Science Publishers.
39. Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology, 15*, 169-182.
40. Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. Cambridge University Press.
41. Swami, V., von Nordheim, L., & Barron, D. (2016). Self-esteem mediates the relationship between connectedness to nature and body appreciation in women, but not in men. *Body Image, 16*, 41-44.
42. Richards, D. R., Passy, P., & Oh, R. R. Y. (2017). Impacts of population density and wealth on the quantity and structure of urban green space in tropical Southeast Asia. *Landscape and Urban Planning, 157*, 553-560.