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Act Globally, Feel Locally: Effects of Early Outdoor Experience

Katie Gillam

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Introduction

According to the UN Intergovernmental Panel on Climate Change (IPCC), our changing environment may be irreversible by 2023. The global food production change is destabilizing, threatening crop outcomes and food insecurity. Biodiversity is suffering from the effects of climate change, and more and more species are threatened by extinction. Infectious diseases, malnutrition, respiratory illness, allergies, and waterborne illnesses are all increasing as weather patterns change and the environment continues to destabilize. And those who will suffer these consequences the most are women and girls, people with disabilities, people of color, and the elderly population. Furthermore, anxiety and depression are becoming global health crises with 32.3% of adults reporting such symptoms in 2023. With these two coexisting crises, resources that will begin to heal the planet and bring emotional wellness are crucial. Nature therapy and outdoor experiences may provide a supplement, or alternative, to existing mental health treatments that do not only help the individual, but the planet as well. Deville and colleagues (2021) in an investigation on the connection between outdoor education and environmental stewardship, found that the more time people spent outside in nature, the more positive values they held related to the environment. This study shows that simply spending time outdoors can have a long-lasting effect on one's outlook and attitude toward the environment and heir stewardship of it. There is a growing body of evidence supporting the role of the outdoors in mental health, such as Holden and colleagues (2018) study of greenspace and wellbeing. They found a significant, positive correlation between access to local greenspaces and scores on a life satisfaction scale. Participants showed a higher score on the mental wellbeing measure they used, the Warwick-Edinburgh Mental Well-Being Scale, when they had more access to greenspaces in their communities. The purpose of this project is to answer the empirical question of whether early recreational experience in the outdoors instills a sense of stewardship for the environment, behavioral responsibility for the planet, and wellness in the mind. We define environmental stewardship as pro-environmental attitudes, behaviors, and knowledge. We want to see if creating more opportunities to engage in the environment for social, physical, and emotional wellness could create a stronger bond between an individual and their environment.

Empirical Question

Does early recreational experience in the outdoors instill a sense of stewardship for the environment, behavioral responsibility for the planet, and wellness in the mind?

Participants

We will convenience sample at Pacific University Campus from both undergraduate and graduate students. We anticipate 100 participants, about 50 females and 50 males. It is anticipated that the average age of the sample would be approximately 21 years (P=21; SD=5).

Proposed Method

The materials for this study included a standard demographic measure as well as the following measures:

WHO-5 Well-Being Index assesses the quality of life of the participant within the last two weeks. (Topp, et al. 2015).

The New Environmental Paradigm Scale assesses participants' environmental beliefs and attitudes *(Dunlap, et al., 2000).*

An Environmental Knowledge Scale will be used to assess the degree to which participants understand the state of the environment and factors that impact it.

A true/false survey will be used to assess the exposure each participant had to the outdoors throughout their childhood. Topics include the different kinds of outdoor experiences they had and the behaviors they exhibit today.

This descriptive, survey study will be distributed online through an online survey platform, Qualtrics™. Participants will provide informed consent through an "implied consent" page that ends with an "I agree to participate" icon they will click on. The survey section will include a demographics questionnaire, the NEP (Dunlap, et al. 2000), an environmental knowledge and behavior section that is delivered through a series of true/false options, and a Subjective Wellness Measure (Topp, et al. 2015).

Anticipated Results

To assess our prediction that early experiences in nature will be predictive of higher WHO-5 scores, we will conduct a linear regression between high scores on early childhood exposure and the WHO-5. Then, we will conduct a linear regression between high scores on childhood exposure and the NEP, followed by the Environmental Knowledge Scale. Further, we will conduct a 3 Gender (Female, nonbinary, and male) x 2 Bimodal Early Childhood Experience (High and Low scores) x 3 Religion using Constrained Categories (e.g., Spiritual/Atheist/Agnostic, Judeo-Christian, and All Other Religious groupings) and the NEP, with an effect size estimate for all significant main effects and interactions. Assuming there are significant main effects and/or interactions, we will also conduct a pair-wise comparison for our gender and religion condition using Tukey's Honestly Significant Difference post-hoc. In order to assess the score reliability of the NEP and our sample we will also conduct a Cronbach's alpha coefficient analysis to assess homogeneity of scores. Finally, we will conduct standard descriptive analyses across all demographic variables.

Conclusion

We anticipate the results will demonstrate that more childhood outdoor exposure will predict higher scores on environmental measures and a higher quality of life, measured by the WHO-5. This result would show that prioritizing outdoor experience for children is key to fostering both environmental values and a higher quality of life going forward. From this research, we conclude that more energy, research, and funding should be placed in outdoor adventure resources, environmental education, and nature therapy for the well-being of all.

*Pacific University, Department of Psychology,
Forest Grove, OR 97116, Email: migr0971@pacificu.edu

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*Pacific University, Department of Psychology,
Forest Grove, OR 97116, Email: migr0971@pacificu.edu