

# **Influences on College Outdoor Program Staffs’ Connectedness to Nature**

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## **Background**

As a by-product to the adventure education movement of the 1960s, nonacademic college outdoor programs have flourished in recent decades with hundreds of college and university outdoor programs throughout the United States. Generally administered by full-time professional staff, college and university outdoor programs provide structured training and leadership opportunities for students interested in facilitating outdoor recreation experiences for others. While historically the emphasis of college outdoor programs has been on facilitating adventure-based opportunities (e.g., backpacking, rock climbing, kayaking), primarily on public lands, offering limited outdoor education to reduce negative effects, recent calls from organizational bodies such as the Association of Outdoor Recreation and Education (n.d.) and Wilderness Education Association (2015) have emphasized “promoting ecologically sound stewardship of the natural environment” (para. 1) and “education in the preservation of this country’s wild land areas” (para. 1).

Although primarily nonempirically, ecologists have long theorized about humans’ psychological relationship to the natural world. The importance of feeling connected to nature is a theme in the writing of ecologists (Leopold, 1949; Orr, 1994; Roszak, 1995). They have argued that this connection to nature is a key component of fostering ecological behavior. Nisbet, Zelenski, and Murphy (2011) suggested being disconnected from nature not only may have detrimental effects on human happiness, but also may contribute to an unhealthy environment. Conn (1998) and others (Feral, 1998; Kals & Maes, 2004) argued that along with physical health, psychological health is linked to perceptions of nature and the planet and that a fragmented human–nature relationship negatively affects psychological health.

Given the increasing attention toward stewardship education in college outdoor programs, it seems important to examine some of the influences of connectedness to nature (Mayer & Frantz, 2004), particularly as some of the influences may be the type that college outdoor programs can provide training for and facilitate. Unlike other environmental scales that measure more cognitive beliefs (e.g., New Environmental Paradigm; see Dunlap, Van Liere, Mertig, & Jones, 2000), the connectedness to nature measure is “designed to tap an individual’s affective, experiential connection to nature” (Mayer & Frantz, 2004, p. 504).

As such, the primary purpose of this paper was to examine staff connectedness to nature and how select factors influence connectedness to nature, operating under the assumption that

college and university outdoor programs can play a significant role in influencing the connectedness to nature of staff and participants.

## Method

A 17-question electronic survey was developed and administered to members of the Association of Outdoor Recreation and Education (AORE) via a Listserv invitation in the fall of 2013 and the winter of 2014. AORE is a membership-driven professional organization that hosts a national conference providing a forum for college and university outdoor program staff to learn and share about best management practices, policy, and more. The survey invitation was addressed to staff members associated with college and university outdoor programs. The survey included questions aimed at addressing connectedness to nature, outdoor education, environmental education, and other demographic information. The connectedness to nature measure consisted of 13 items using a 7-point level of agreement Likert scale (Mayer & Frantz, 2004), with the outdoor education and environmental education questions using a yes/no format.

## Results

Nearly 300 ( $n = 285$ ) college and university outdoor program staff completed the survey. All regions of the United States were represented in the response with nearly 30 states participating. Just over half of the respondents were male (54.1%). All 13 connectedness to nature measure items were reliable with an overall scale Cronbach value of .892. *Note:* In additional analysis, we found that none of the items positively affected the overall Cronbach value if deleted. As such, all 13 items were kept. Overall mean scores for connectedness to nature items ranged from 4.32 to 6.23 where 1 = *strongly disagree* and 7 = *strongly agree* with an overall mean of 72.2 ( $SD = 11.4$ ) out of a possible 91. Eight of the 13 items had mean scores between 5.0 (*slightly agree*) and 6.0 (*agree*) with three  $\geq 6.0$ .

To measure influences on connectedness to nature, regression analysis was performed using the following predictor variables: college outdoor program provided exposure to (1) outdoor education training and (2) environmental education training, (3) years of experience working with a college or university outdoor program, (4) gender, (5) type of outdoor recreation experience commonly sought (ranged from primarily being driven by exposure to nature to being predominantly activity-based oriented), and (6) a comparison of the number of personal pre-college nature-based experiences to other outdoor program staff. While the model's overall  $R = .268$ , the adjusted  $R^2 = .032$  and was not statistically significant ( $p = .069$ ). The only statistically significant ( $p = .044$ ) variable was linked to what respondents most commonly seek in outdoor recreation experiences, yielding a standardized beta of  $-.152$ .

In a closer examination of each variable used in the regression, we found females had an overall connectedness to nature score greater ( $M = 73.5$ ) than males ( $M = 71.0$ ), but not statistically significant ( $p < .05$ ). Training in outdoor education did not differentiate respondents statistically, with those receiving training (77.8%) having an overall connectedness to nature mean score of 72.5 and those without 71.8. Nonsignificant results were also found for those receiving environmental education training (22.0%), with those receiving training having a connectedness to nature score of 74.4 and those without 71.6. Length of time working with an outdoor program also did not have a statistically significant relationship to overall connectedness to nature with a correlation value of  $-.092$  determined.

On the other hand, when program staff were asked to compare the number of their pre-college nature-based experiences (i.e., primary motive was to be in nature) to other staff with whom they work at an outdoor program, a statistically significant ( $p = .015$ ) but weak correlation was found of .149. Last, when program staff were asked the type of outdoor recreation experience they commonly seek, through an analysis of variance test, we found respondents "more inter-

ested in the achievement of activity goals versus experiencing nature and the natural world” to be significantly different ( $p = .019$ ) with a lower connectedness to nature score ( $M = 64.1$ ) from those “more interested in experiencing nature and the natural world versus achievement of activity goals” ( $M = 72.7$ ), “I am equally interested in experiencing nature and achievement of activity goals” ( $M = 73.1$ ), and “first and foremost more interested in experiencing nature and the natural world versus achievement of activity goals” ( $M = 77.4$ ).

## Conclusions and Implications

Respondents collectively seem connected to nature, although few item scores were  $\geq 6.0$  (*agree*). Only one significant predictor of connectedness to nature was revealed in the regression analysis. This could be explained by the range of overall mean scores for connectedness to nature items, thereby obscuring a truer influence of the predictor variables measured. The factor structure of the connectedness to nature scale should be examined in further research as it has been found in previous studies that its single factor explained variance ranging from only 28% to 38% (Mayer & Frantz, 2004). In addition, it seems prudent to look at how the predictor variables influence individual connectedness to nature items.

Although a majority of respondents receive outdoor education training, fewer receive environmental education training through their respective outdoor programs. That said, neither outdoor education nor environmental education training seems to be statistically different between those receiving it and those not, nor do gender or years of experience working with outdoor programs have a relationship to connectedness to nature. It is plausible that experience outside formal outdoor program training may explain these findings. On the other hand, respondents driven more by experiencing nature versus achievement of recreation activity goals and those who expressed greater precollege nature-based experiences in comparison to their peers expressed statistically greater connectedness to nature scores. Other factors may offer additional insight into the findings (e.g., student versus full-time professional staff), and outdoor program administrators should consider looking at how motives sought in recreation and precollege experiences have implications for program outcomes, particularly if some of those outcomes are premised on the delivery of outdoor education and environmental education to participants in the field. Developing environmental education training may have significant implications for connectedness to nature as a more connected to nature staff may have a greater and positive influence on the connectedness to nature of their respective participants.

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