

## 42. SWACSM Abstract

### Evaluating the Validity of the Salatto-Love and Care of Nature Direct Indication Scale Against the Love and Care of Nature Scale During Rest and After Self-Paced Hiking

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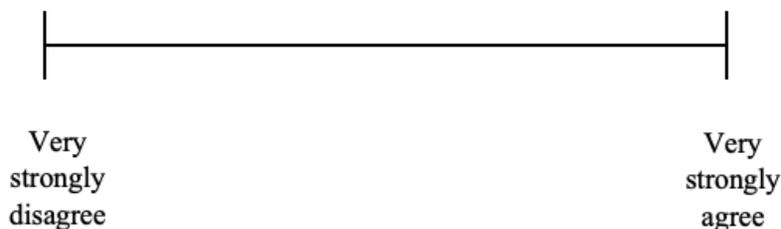
Category: Professional

#### ABSTRACT

There are several scales used to measure one's connectedness to or love of nature. Amongst these scales is The Love and Care of Nature Scale (LCN), which has been used across several disciplines in research. While the LCN is a valid and reliable scale, completing the 15-question scale may be time consuming and difficult during field research. **PURPOSE:** The purpose of the current investigation was to establish a fast, easy-to-administer, and easy-to-understand visual analog scale that is valid for evaluating participants' connectedness to or love of nature. **METHODS:** Nineteen participants met on two consecutive days at Thunderbird Gardens Trailhead in Cedar City, Utah. Upon arrival at the trailhead, participants completed the LCN and the Salatto-Love and Care of Nature Direct Indication Scale (SLCNDIS). The SLCNDIS is a 100-mm-long visual analog scale with two written phrases at opposing ends of the line: "Very Strongly Disagree" and "Very Strongly Agree" (see below).

Interacting with nature brings me joy and makes me feel a sense of personal connection to and care for nature.

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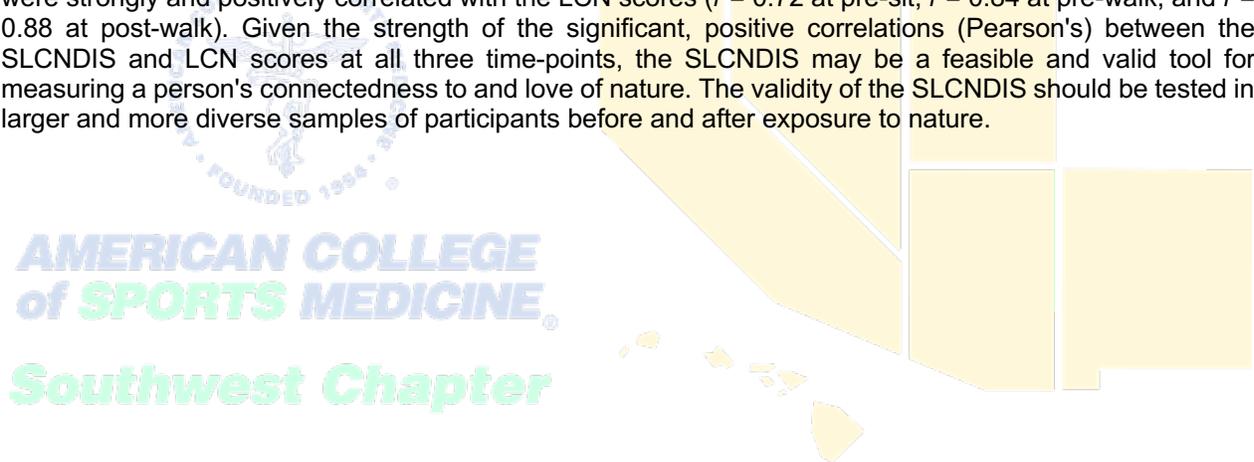
Participants were then instructed to walk into nature, sit, and observe the natural environment for 10 minutes. After this immersion period, participants completed the LCN and SLCNDIS again. After completing the scales this second time, participants completed a 10-minute, self-paced hike. After hiking, participants completed the LCN and SLCNDIS a third time. Scores on the LCN were calculated and compared to the measured mark indicated on the SLCNDIS. Validity will be established by observing a MAPE of 10% or lower as well as a Lin's concordance correlation coefficient above 0.7 Pearson's  $r$  will also be evaluated. **RESULTS:** While the SLCNDIS did not initially satisfy some criteria, the strength of correlation between the two scales increased throughout the investigation. See table below:

Condition	Statistical Test	LCN	SLCNDIS
Pre sitting	Mean (SD)	75.5 (16.2)	70.3 (27.4)
	MAPE (%)		20.7

	Lin's Concordance		0.61
	Pearson's <i>r</i>		0.72
Pre walking	Mean (SD)	80.0 (18.6)	81.3 (18.5)
	MAPE (%)		11.0
	Lin's Concordance		0.83
	Pearson's <i>r</i>		0.84
Post-walking	Mean (SD)	82.8 (19.4)	81.8 (18.6)
	MAPE (%)		8.6
	Lin's Concordance		0.87
	Pearson's <i>r</i>		0.88

### CONCLUSION:

According to the validity criteria of a MAPE  $\leq 10\%$  and Lin's Concordance Correlation Coefficient ( $r_c$ )  $> 0.7$ , the SLCNDIS is concurrently valid with the LCN after 10 minutes of seated immersion **and** 10 minutes of hiking at a self-selected pace in nature (post-walk, MAPE = 9.75%;  $r_c$  = 0.87). Both MAPE and  $r_c$  were too high at baseline (pre-sit; MAPE = 22.49%;  $r_c$  = 0.62) and after 10 minutes of seated immersion (pre-walk; MAPE = 13.00%;  $r_c$  = 0.80) to be considered valid. However, at all three time points, the SLCNDIS scores were strongly and positively correlated with the LCN scores ( $r$  = 0.72 at pre-sit,  $r$  = 0.84 at pre-walk, and  $r$  = 0.88 at post-walk). Given the strength of the significant, positive correlations (Pearson's) between the SLCNDIS and LCN scores at all three time-points, the SLCNDIS may be a feasible and valid tool for measuring a person's connectedness to and love of nature. The validity of the SLCNDIS should be tested in larger and more diverse samples of participants before and after exposure to nature.



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