# **Leisure Activities - Meths & Stats**

Melissa Schneiderová, Josef Mana, and Hana Georgi OVV, PVSPS

# **Author Note**

Correspondence concerning this article should be addressed to Melissa SchneiderováHana Georgi

#### **Leisure Activities - Meths & Stats**

#### Methods

## **Statistical analyses**

### VLS-ALQ

The dimensionality of the VLS-ALQ questionnaire scale in our sample was first checked via the confirmatory factor analysis (CFA) as implemented in the *lavaan* R package (R Core Team, 2024; Rosseel, 2012). A three-factor model with separate 'Private,' 'Public,' and 'Spiritual' independent dimensions, a second order factor model with separate 'Private,' 'Public,' and 'Spiritual' and a superordinate 'Social' factor, and separate unidimensional models for the 'Private' and the 'Public' subscales. Models were evaluated by Tucker Lewis Index (TLI), Comparative Fit Index (CFI) and root-mean-square-error-aproximation (RMSEA) with values of TLI > .9, CFI > .9, and RMSEA < .08 considered indicating adequate fit. Next, internal consistency of the full questionnaire and the 'Public' and the 'Private' subscales were estimated via the Cronbach's  $\alpha$  under the assumption of  $\tau$ -equivalence and via the MacDonald's  $\omega$  for when this assumption is relaxed. Internal consistency indexes were estimated in the *psych* R package using the default settings (R Core Team, 2024; Revelle, 2024). Following the classical recommendations for interpretation of coefficient  $\alpha$  (Nunnally & Bernstein, 1994; Streiner, 2003), we consider values above 0.7 as sufficient for early research, values above 0.8 as sufficient for basic research, and values above 0.9 as necessary for clinical use.

Sum scores of the full VLS-ALQ questionnaire as well as its 'Private' and 'Public' subscales were descibed by their in-sample means ± standard deviations for SA and non-SA groups separately. The null hypothesis that SA and non-SA groups' means are equal was tested via the independent sample *t*-test with Welch modification to the degrees of freedom and effect size of mean differences characterised by Cohen's d. The null hypothesis that regarding test scores in SA and non-SA groups, neither distribution is stochastically greater than the other, was tested via the Mann-Whitney U test with effect size characterised by Vargha and Delaney A as implemented in the *effsize* R package (Torchiano, 2020; Vargha & Delaney, 2000).

# COBRA-A

Leisure activities

Results

### **Appendix**

- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. McGraw-Hill Companies, Incorporated. https://books.google.cz/books?id=r0fuAAAAMAAJ
- R Core Team. (2024). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.R-project.org/
- Revelle, W. (2024). *Psych: Procedures for psychological, psychometric, and personality research*. Northwestern University. https://CRAN.R-project.org/package=psych
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1–36. https://doi.org/10.18637/jss.v048.i02
- Streiner, D. L. (2003). Starting at the beginning: An introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment*, 80(1), 99–103. https://doi.org/10.1207/S15327752JPA8001/\_18
- Torchiano, M. (2020). *Effsize: Efficient effect size computation*. https://doi.org/10.5281/zenodo.1480624
- Vargha, A., & Delaney, H. D. (2000). A critique and improvement of the CL common language effect size statistics of McGraw and wong. *Journal of Educational and Behavioral Statistics*, 25(2), 101–132. https://doi.org/10.3102/10769986025002101