Study Protocol:

Searching for Meaning: A Study Examining the Effect of a Meaning-centered Intervention (PSY-2223-S-0010)

Objective: The study objective is to assess whether a meaning-centered intervention for young women with weight and shape concerns leads to significant improvements when compared to a waitlist control condition in meaning in life across a general spectrum, but also specifically in Comprehension, Purpose, and Mattering. In addition, effects on eating disorder symptoms and internalizing symptoms in general, but also specifically for depression, anxiety, and stress, will be tested.

Design: Intervention condition vs waitlist condition immediately after the intervention and four weeks later, controlling for baseline scores

Methods: After students give online consent to the screening procedure, they will fill out the Weight Concerns Scale (WCS; Killen et al., 1994), and those meeting the inclusion criteria (answering "always" or "often" to the item "Do you ever feel fat?" or had a total score ≥ 47 on the WCS or both, and not currently being treated for an eating disorder) will be invited to participate in the study. Participants will fill out a separate online informed consent form for the main study and then indicate their demographic information, followed by completing baseline (T1) measures. Measures include: Meaning in Life Questionnaire – Presence subscale (MLQ; Steger et al., 2006); Multidimensional Existential Meaning Scale (MEMS; George & Park, 2016); Eating Disorder Examination-Questionnaire (EDE-Q; Fairburn & Beglin, 2008); Depression Anxiety Stress Scales-21 (DASS-21; Lovibond & Lovibond, 1995). After completion of T1, participants will be randomly allocated to either the intervention or the waitlist condition (parallel design) through a random integer generator (Haahr, 2024). The main researcher (FS) will assign the participants in the intervention condition to an intervention trainer. Participants will then receive six only weekly individual sessions led by their trainer and guided by a workbook, in which they will also complete homework assignment, while participants in the control condition will not receive any intervention.

Immediately after the intervention period, the participants will be invited to fill out the post-assessment (T2), which will include the same questionnaires and order as T1. The waitlist control participants will be invited to fill in T2 seven weeks after T1. Four weeks later, both

groups will receive an invitation to fill out the follow up-assessment (T3, again with the same questionnaires and in the same order). The invitations for all questionnaires will be sent out via e-mail and participants will receive up to three reminders when they do not complete the assessment. After completion of the data collection, participants in the waitlist condition will be given the opportunity to follow the meaning-centered intervention outside of the study. All study parts will take place online.

Statistical considerations: Sample size will be based on α-level of .05, a power of $\beta = .80$, an effect size of $f = 0.25$, number of groups = 2, number of covariates = 1, and numerator df = 1, leading to a required minimal sample size of $N = 128$.

For our primary outcome measures, we will conduct two separate ANCOVAs to test the effects of the intervention on the Presence of Meaning in Life with Condition (intervention, waitlist) as a between-subjects factor and the baseline MLQ-P score as covariate, once with the post-assessment score as dependent variable and once with the follow up-assessment score as dependent variable. These analyses will be repeated with the secondary outcome measures including the MEMS subscales scores of Comprehension, Purpose, and Mattering, as well as the EDE-Q mean score and the DASS-21 total score and subscales Depression, Anxiety, and Stress as outcome variables and the according baseline scores as covariate. To correct for familywise error rate, we will apply Bonferroni-Holm corrections to the secondary analyses, resulting in the smallest p-value being tested against an α of .00625, followed by .00714, .00833, .01, .0125, .01667, .025, and .05.

References

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