

Supplemental Table 1. Constructs, instruments, and timing of assessments

Constructs	Instrument
Demographics	n/a (Age, gender, race/ethnicity, education, service-connected disability, etc.)
Combat exposure	First two questions of the PTSD Diagnostic Scale-5 (73) and Combat Exposure Scale (74)
Ability to safely perform unsupervised physical activity	Physical Activity Readiness Questionnaire (PAR-Q) (62)
Suicidal ideation	MINI Suicidality module (65)
QoL/well-being	Satisfaction with Life Scale (75)
Physical health	14-item Physical Health Questionnaire (76)
PTSD symptoms	PTSD Checklist for DSM- 5 (61)
Depression	Personal Health Questionnaire (PHQ)-8 (77)
Perceived Stress	4-item Perceived Stress Scale (PSS) (78,79)
Affect	20-item Positive and Negative Affect Schedule (PANAS) (80,81) 10-item PANAS
Loneliness	3-item UCLA loneliness scale (82)
Social connectedness	First four items of the 6-item Perceived Cohesion Scale (83)
Anxiety	20-item Stress and Anxiety Scale (STAI) – state level 6-item STAI
Sleep	Full (19-item) Pittsburgh Sleep Quality Index (PSQI) (84) Shortened (5-item) PSQI
Nature connection	Connectedness to Nature Scale (6-items) (85)
Rumination	Full (12-item) state rumination (brooding subscale of Rumination Reflection Scale [RRS]) Shortened (8-item) state rumination (brooding subscale of RRS) (86)
Cognitive reappraisal	4-item state emotion regulation questionnaire (ERQ) (87)
Physical activity – self report	9-item International Physical Activity Questionnaire (IPAQ) short form (68)

Constructs	Instrument
Physical activity monitor	Wrist worn activity monitor (Garmin Vivosmart 4)
Alcohol consumption	10-item Alcohol Use Disorders Identification Test (AUDIT) (64) 3-item (AUDIT-C) (88)
Drug-related problems	Drug Abuse Screening Test-10 (63)
PTSD treatments	n/a
Preference for treatment, hiking frequency and expectation about treatment	n/a
Acceptability of hikes	n/a

‡Timing of assessment: S/B: screening/baseline, WK: weekly – weeks 1-5 and 7-11, FU: 6-, 12-, and 24-week

follow-ups

†A, acceptability; CO, covariate (including moderators); E, eligibility (to assess inclusion/exclusion criteria); M, mediator P, primary outcome; S, secondary outcome