

Ego Strength Change in Youth in an Outdoor Behavioral Healthcare Program

Outdoor Behavioral Healthcare

- Outdoor behavioral healthcare (OBH) has been described as the “prescriptive use of wilderness experiences by licenced mental health professionals to meet the therapeutic needs of clients” (Gass, et al., 2014, p.1). OBH also includes:
 - Extended backcountry travel and wilderness living experiences long enough to allow for clinical assessment, establishment of treatment goals, and a reasonable course of treatment not to exceed the productive impact of the experience,
 - Active and direct use of clients’ participation and responsibility in their therapeutic process,
 - Continuous group-living and regular formal group therapy sessions to foster teamwork and social interactions (excluding solo experiences),
 - Individual therapy sessions, which may be supported by the inclusion of family therapy,
 - Adventure experiences utilized to appropriately enhance treatment by fostering the development of eustress (i.e., the positive use of stress) as a beneficial element in the therapeutic experience,
- The use of nature in reality as well as a metaphor within the therapeutic process, and
- A strong ethic of care and support throughout the therapeutic experience.



Treatment Program

- The treatment provided in this study occurred in a Outdoor Behavioral Healthcare program in the Western United States.
- The program uses a continuous flow expedition model, where participants are immersed in the wilderness and outdoor environment throughout their entire stay in the program.
- The program works with adolescents 13-17 years of age.
- The OBH program uses a combination of Adlerian Theory and Narrative Family Therapy to promote psychosocial development.

Purpose of the Study

- The purpose of this study is to explore the link between participating in an Outdoor Behavioral Healthcare programs and psychosocial development. It also seeks to explore the link between psychosocial development and adolescents overall behavioral functioning.



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Rationale for the Study

- Outdoor Behavioral Healthcare (OBH), a subset of Adventure and Wilderness Therapy, has been growing as a viable treatment options for struggling adolescents.
- Outdoor Behavioral Healthcare Program have claimed that they “work” or improve adolescent functioning through facilitating an adolescents growth through the developmental stages.
- A growing number of studies have found OBH to be effective for treating adolescents struggling with emotional, behavioral and substance related problems (DeMille, 2015).
- However, few studies have been conducted exploring the developmental progress that adolescents make while in OBH programs.



Methods

- 109 participants ages 13-17
- Data was gathered at admissions and discharge
- Youth Outcome Questionnaire 2.0 self-report
- A global measure of adolescent functioning
- Not diagnostic but explores 6 factors that are considered important for healthy adolescent functioning
- Provided a measure of Distress
- Psychosocial Inventory of Ego Strengths (PIES)
- Ego Strengths are indicative of an overall state of well-being associated with well-adjusted individuals.

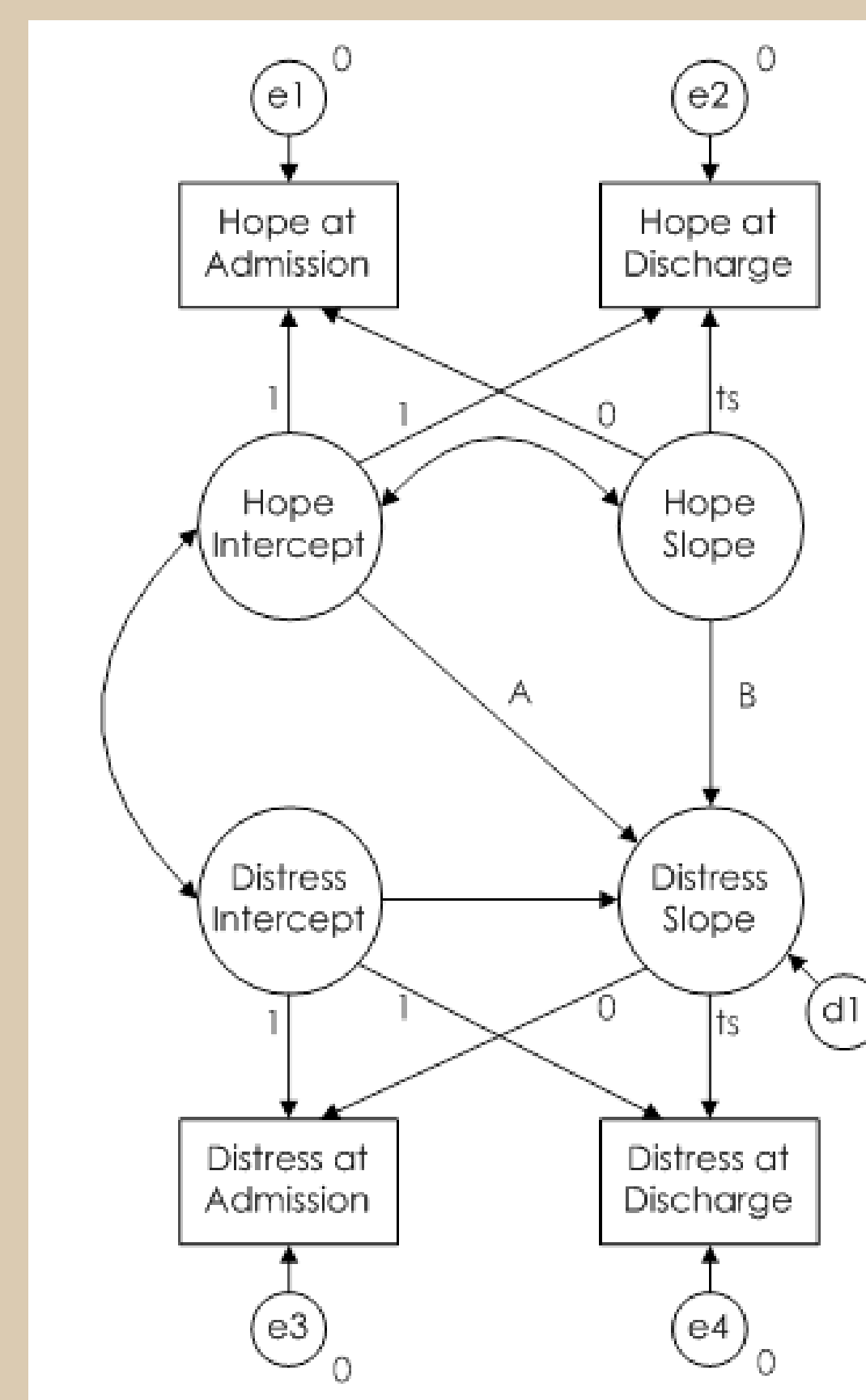
Analysis

- We assessed the links between psychosocial virtues and behavior problems with a series of two-wave growth models (Duncan & Duncan, 2004), one for each virtue (example shown in Figure 1). A total score for the behavior problems used is labeled ‘Distress’ in the model. There are two parts to this model: the slope mean for the virtue (change from admission to discharge) and the path from the slope for the virtue to the slope for distress (path B; relation between change in the virtue and the change in distress). Table 1 shows the estimates.



Findings

- Figure 1. (below) Visual representation of the two-wave growth curve model using Hope as an example. Rectangles are observed variables; circles are latent variables. Small circles represent residual (error or disturbance) variances. To identify the model, error variances are fixed. Single-headed arrows are hypothesized paths. Double-headed arrows represent covariances. The latent intercept variables represent initial Hope and Distress at admission; the latent slope variables represent change in Hope and Distress from admission to discharge. The time interval between admission and discharge was allowed to vary by the individual’s length of stay, or time score (ts).



Outcome	Estimate	95% CI	Standardized Estimate
Hope			
Hope Intercept	27.28	[26.03, 28.54]	4.42
Hope Slope	.05	[.03, .07]	.52
A. Hope Intercept → Distress Slope	-.03	[-.05, -.02]	-.36
B. Hope Slope → Distress Slope	-2.78	[-4.53, -1.03]	-.51
Will			
Will Intercept	27.70	[26.74, 28.65]	5.92
Will Slope	.05	[.03, .07]	.60
A. Will Intercept → Distress Slope	-.06	[-.08, -.04]	-.48
B. Will Slope → Distress Slope	-3.83	[-5.74, -1.92]	-.58
Purpose			
Purpose Intercept	28.56	[27.52, 29.60]	5.35
Purpose Slope	.03	[.01, .05]	.31
A. Purpose Intercept → Distress Slope	-.02	[-.04, -.01]	-.23
B. Purpose Slope → Distress Slope	-.30	[-.96, .36]	-.06
Competence			
Competence Intercept	28.41	[27.35, 29.47]	5.35
Competence Slope	.04	[.02, .06]	.47
A. Competence Intercept → Distress Slope	-.05	[-.06, -.03]	-.45
B. Competence Slope → Distress Slope	-2.89	[-4.95, -.83]	-.44

Outcome	Estimate	95% CI	Standardized Estimate
Fidelity			
Fidelity Intercept	28.54	[27.66, 29.42]	6.32
Fidelity Slope	.03	[.01, .04]	.35
A. Fidelity Intercept → Distress Slope	-.03	[-.05, -.02]	-.27
B. Fidelity Slope → Distress Slope	-2.59	[-4.49, -.70]	-.33
Love			
Love Intercept	31.06	[30.14, 31.97]	6.32
Love Slope	-.003	[-.02, .01]	-.04
A. Love Intercept → Distress Slope	-.01	[-.03, -.02]	-.06
B. Love Slope → Distress Slope	-.14	[-1.62, 1.34]	-.02
Care			
Care Intercept	30.34	[29.41, 31.27]	6.26
Care Slope	.03	[.01, .04]	.30
A. Care Intercept → Distress Slope	-.03	[-.05, -.01]	-.27
B. Care Slope → Distress Slope	-1.48	[-3.04, .08]	-.22
Wisdom			
Wisdom Intercept	27.53	[26.47, 28.59]	5.17
Wisdom Slope	.02	[.01, .04]	.27
A. Wisdom Intercept → Distress Slope	-.03	[-.05, -.01]	-.27
B. Wisdom Slope → Distress Slope	-1.56	[-2.73, -.39]	-.24

Implications & Limitations

- Ego strengths are positively associated with many aspects of psychological wellbeing, including identity achievement, self-esteem, empathic concern, perspective-taking, and positive forms of coping
- Results indicated that participants in the OBH intervention showed a broad pattern of increases in ego strengths.
- Specifically, they exhibited increases from admission to discharge in sense of Hope, Will, Purpose, Competence, Fidelity, Care, and Wisdom. Additionally, increases in Hope, Will, Competence, Fidelity, and Wisdom were associated with decreases from admission to discharge in participants' distress scores. For example, participants' mean sense of hope increased .05 points. For every one point that hope increased, distress decreased by 2.78 points.
- In this study, struggling youths' ego strengths increased after participation in an OBH program, supporting claims that wilderness therapy promotes positive development and supports psychological wellbeing.
- Some of the studies limitation include: Single program sample, the use of self-report data, no control group, and the small sample size.

