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Does Cognitive Behavioral Therapy Promote Meaning-Making? A Preliminary Test in the Context of Geriatric Depression

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Abstract

Objectives—This study examined the extent to which cognitive behavioral therapy (CBT) for geriatric depression promoted meaning made of stress.

Design—Fifty-one participants received CBT and were assessed at pre- and posttreatment.

Methods—The primary outcome was the Integration of Stressful Life Experiences Scale (ISLES) and demographic factors were examined as moderators of changes over time.

Results—Those with more education showed improvement in their ability to regain positive values, worldviews, and purpose in life after a stressor.

Conclusions—It appears that CBT promotes some forms of meaning made of stress for those with higher education.

Keywords

Cognitive-Behavioral Therapy; Geriatric Depression; Meaning-Making; Positive Psychology; Treatment Outcome

Major depressive disorder (MDD) and other psychological conditions are commonly precipitated by stressful events (Kendler, Karkowski, & Prescott, 1999). There is increasing consensus that meaning making (i.e., “the restoration of meaning in the context of highly stressful situations;” Park, 2010, p. 257) can represent a central aspect of coping and adjustment in these contexts. From a meaning making perspective, challenges emerge if the reality of a stressor cannot be adaptively assimilated into global meaning (e.g., preexisting beliefs/values, goals) and/or the person cannot accommodate aspects of their global system to situationally construct meaning out of the experience. These violations of meaning can be quite distressing and lead to strained efforts to reconcile one’s appraisal of the stressor and global meaning, which may manifest as MDD or other mental health problems that prompt individuals to seek psychotherapy (Kendler, Karkowski, & Prescott, 1999; Park 2010).

Cognitive behavioral therapy (CBT) has received considerable support as an effective approach for treating geriatric depression (Scogin, Welsh, Hanson, Stump, & Coates, 2005). A primary feature of CBT involves cognitive restructuring or the attempt to challenge and modify maladaptive thoughts and meaning structures (e.g., core beliefs). Although CBT is effective at alleviating MDD, questions remain as to whether it similarly promotes meaning making. Drawing on Holland, Currier, Coleman, & Neimeyer's (2010) Integration of Stressful Life Experiences Scale (ISLES), this study explored whether a CBT intervention with demonstrated efficacy for addressing geriatric depression (Marquett et al., in press) also enhanced clients' meaning made of stress. Demographic factors were examined as potential moderators of these changes.

Method

Participants

This investigation includes 51 individuals (17 men and 34 women), who participated in larger study of 60 participants (Marquett et al., in press). Excluded participants (with incomplete information) did not significantly differ from the rest of the sample with regard to demographics. A majority of the participants (74.5%) were Caucasian individuals, and the average age was 69.8 ($SD = 7.3$). On average, participants had 15.2 ($SD = 2.1$) years of education.

Procedure

Following IRB approval, we recruited participants who spoke English, had a score ≥ 16 on the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), and met criteria for a current depressive disorder. Those with suicidal ideation, a history of psychosis/mania, active substance abuse, and/or frank evidence of dementia were excluded.

Participants completed 12 weekly 1-hour sessions of CBT for geriatric depression, based on a published manual (Gallagher-Thompson & Thompson, 2010).

Assessment

Our primary outcome measure was the ISLES, which is an assessment of meaning made of stress. This measure was completed pre- and posttreatment with regard to the event that was reported as "most distressful" at pretreatment. The ISLES yields two subscales, which were examined separately. Comprehensibility, which is comprised of five items, gauges one's ability to make sense of a stressor (e.g., "I have made sense of this event"), and Footing in the World, which is made up of 11 items, assesses the extent to which one's worldviews (e.g., goals, sense of purpose/direction, values, belongingness) have (or have not) been disturbed (e.g., "My beliefs and values are less clear since this event"). A 5-point response format was used for each item ranging from 1 (*Strongly agree*) to 5 (*Strongly disagree*). Higher scores indicate more adaptive meaning made of a stressor, with possible scores ranging from 11 to 55 for Footing in the World and 5 to 25 for Comprehensibility. In this sample, Footing in the World ($M = 34.73$, $SD = 10.51$, Range = 12-55) and Comprehensibility ($M = 15.89$, $SD = 4.57$, Range = 5-25) scores at pretreatment were found to be somewhat lower (indicating greater difficulties with meaning) compared to those

found in previous studies with younger, non-clinical samples (Holland et al., 2010; Holland, Mallot, & Currier, in press). Cronbach's alpha indicated adequate to excellent internal consistency for Footing in the World and Comprehensibility ($\alpha = .68 - .91$). Additional psychometric details on the ISLES have been provided elsewhere (Holland et al., 2010).

Results

Shapiro-Wilk tests indicated that the distribution of Footing in the World scores ($W(51) = 0.98, p = .73$ and $W(51) = 0.96, p = .10$ at pre- and posttreatment, respectively) and Comprehensibility scores ($W(51) = 0.98, p = .61$ and $W(51) = 0.96, p = .08$ at pre- and posttreatment, respectively) did not significantly deviate from the normal distribution, supporting the use of parametric tests. When Footing in the World was used as the outcome, repeated measures analysis of variance revealed a significant main effect for time, with higher (more adaptive) scores at posttreatment (see Table 1). However, an interaction effect between time and education was observed, whereby highly educated participants showed significantly greater improvements in Footing in the World, compared to those with less education (see Figure 1). When the sample was split at the median for years of education (i.e., those with 15 years or more of education vs. those with 14 years or less of education; n 's = 24 and 27, respectively), the pre- to posttreatment Cohen's d for Footing in the World was found to be 0.59 for highly educated individuals (which would be considered a medium effect size), compared to 0.01 for less educated individuals. As a point of comparison, effect sizes for depressive symptom reduction (assessed by the CES-D) for the high and low education groups were 0.70 and 0.85, respectively. Notably, the mean Footing in the World score for highly educated individuals at posttreatment was 39.58, approaching values found in non-clinical samples (e.g., $M = 42.38$ in Holland, Currier, & Neimeyer, 2014).

When the same analysis was performed using Comprehensibility as the outcome, none of the independent variables were statistically significant, indicating that little change occurred pre- to posttreatment in terms of participants' ability to make sense of their identified stressors (see Table 1). However, the main effect for gender approached statistical significance with men reporting somewhat higher levels of Comprehensibility overall.

Discussion

These results suggest that highly educated older adults with depression whose worldviews have been disturbed by a significant life stressor are likely to regain their "Footing in the World" after participating in CBT. Those with less education, on average, did not recover a sense of Footing in the World, despite showing comparable reductions in depression, indicating that these individuals might have approached the intervention somewhat differently. It is possible that highly educated individuals had less difficulty thinking abstractly about cognitive processes, developing alternate ways of constructing meaning and generalizing these skills to multiple situations—resulting in broad improvements in their worldviews following a significant stressor. Alternatively, those with higher levels of education may have less economic and social stress (Cohen & Janicki-Deverts, 2012), which made it easier for them to take advantage of cognitive restructuring exercises that facilitated improvement in Footing in the World.

No significant changes were observed at posttreatment with regard to Comprehensibility, indicating that CBT did not substantially impact the way in which participants made sense of their identified stressor. It seems possible that CBT exercises, such as cognitive restructuring, may have helped to challenge client's overly negative views of the world (and their role in it) after a significant life stressor, resulting in improvements in Footing in the World. However, these exercises were likely less focused on exploring clients' "multiple realities" or integrating problematic "micro-narratives" into the broader "macro-narrative" of one's life, which could more directly target Comprehensibility (Neimeyer, 2004). Of course, it is also possible that significant reductions in Comprehensibility following CBT could have been detected with a larger sample. Consistent with previous findings (Holland et al., 2014), there was also a non-significant trend for men to report higher levels of Comprehensibility overall; although, no gender differences were observed in terms of improvement in Comprehensibility from pretreatment to posttreatment.

Although limited by a small, non-representative sample and lack of control group, if these findings are replicated, clinicians and researchers may consider the possibility of incorporating meaning-oriented components to traditional CBT (e.g., "re-authoring" the self-narrative; Neimeyer, 2009, p. 97) to help clients make sense of significant stressors and regain a sense of purpose and direction in life (Clark, 1995).

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Practitioner Points

- Cognitive behavioral therapy as it is routinely practiced may help highly educated older adults regain their Footing in the World (e.g., maintain positive values, worldviews, and purpose in life) in the aftermath of a stressful life event.
- Cognitive behavioral therapy appears to offer fewer gains for less educated older adults (in terms of Footing in the World) as well as for other aspects of meaning-making, such as the ability to “make sense” of a significant stressor.
- Though more empirical work is necessary, meaning-oriented interventions (e.g., “re-authoring” a fragmented self-narrative; Neimeyer, 2009, p. 97) hold promise as useful adjuncts to routine therapy that could augment outcomes.

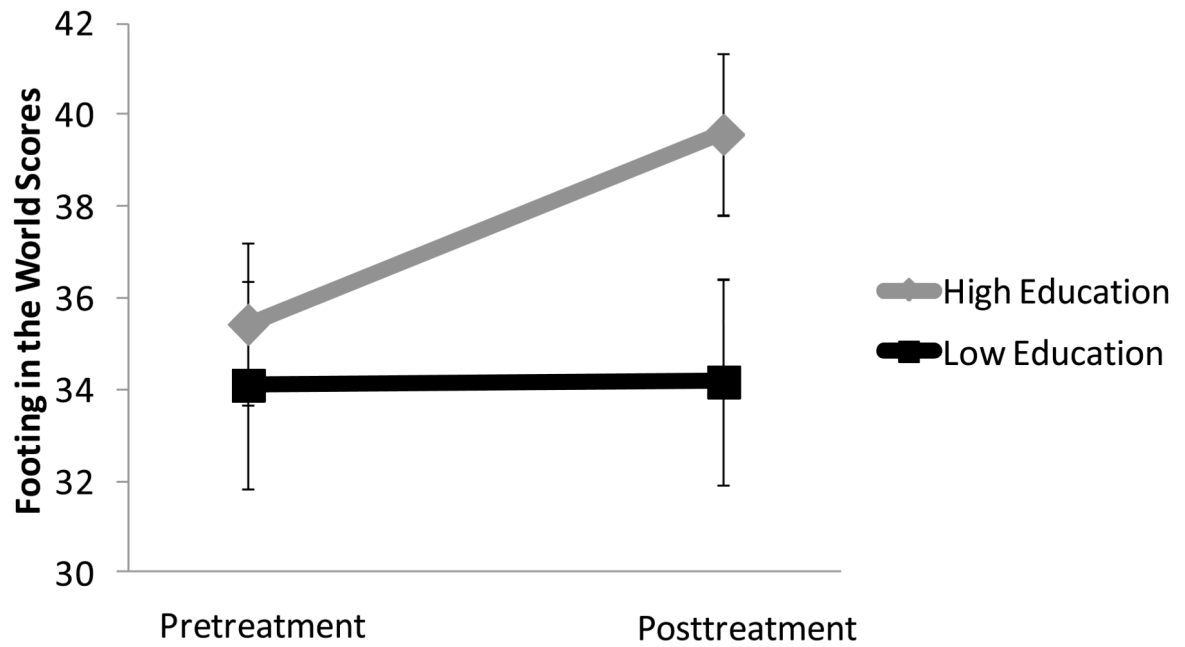


Figure 1.

Pre- to posttreatment changes in Footing in the World for high and low education groups.

Higher scores on the Footing in the World subscale indicate more positive worldviews in the wake of a life stressor. Standard errors are represented with error bars.

Table 1
Repeated Measures ANOVA Examining Footing in the World and Comprehensibility from Pre- to Posttreatment (N = 51)

Source	Footing in the World					Comprehensibility						
	df	SS	MS	F	p	df	SS	MS	F	p		
		Between subjects						Between subjects				
Age	1	64.78	64.78	0.70	.41	1	33.04	33.04	1.66	.20		
Years of education	1	11.75	11.75	0.13	.72	1	1.05	1.05	0.05	.82		
Gender	1	86.48	86.48	0.93	.34	1	72.09	72.09	3.63	.06		
Race/ethnicity	1	24.41	24.41	0.26	.61	1	11.40	11.40	0.57	.45		
Error 1	46	4259.19	92.59			46	913.39	19.86				
		Within subjects						Within subjects				
Time	1	419.98	419.98	5.16	.03	1	20.53	20.53	1.06	.31		
Time * Age	1	196.46	196.46	2.62	.11	1	0.92	0.92	0.05	.83		
Time * Years of education	1	333.36	333.36	4.44	.04	1	44.57	44.57	2.39	.13		
Time * Gender	1	38.88	38.88	0.52	.48	1	0.04	0.04	0.00	.97		
Time * Race/ethnicity	1	0.95	0.95	0.01	.91	1	14.53	14.53	0.78	.38		
Error 2	46	3450.69	75.02			46	856.92	18.63				

* $p < .05$