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Family and meaning: Examining the four needs for meaning as mediators

Abstract:

In a series of three studies we investigated the relationship between family and meaning and tested whether Baumeister's (1991) four needs for meaning (purpose, values, efficacy, and self-worth) mediated this relationship. Study 1 (n=228) showed that participants assigned to think about their family reported more meaning in their lives than those assigned to think about a control topic. Using correlational data, Study 2 (n=220) found that the four needs for meaning, self-worth, values, efficacy, and purpose, mediated this relationship. Study 3 (n=128) provided experimental data to demonstrate that thinking of about family results in higher meaning, efficacy, and purpose. Purpose mediated the relationship between family and meaning. Several avenues for future research are outlined.

Family and meaning: Examining the four needs for meaning as mediators

Meaning is associated with health and general well-being (Reker, Peacock, & Wong, 1987; Wong & Fry, 1998; Zika & Chamberlain, 1987; 1992). But what brings meaning to life? There are many potential sources from which people derive meaning, including religion, work and career, personal relationships, and political involvements. Among these many sources, however, one seems especially prominent in people's reports on what gives their lives meaning: family. In one recent study, 68% of participants cited family as the one thing that brought the most meaning to their lives, whereas the next most frequently cited source (friendship) was endorsed by merely 14% (Lambert et al., 2008). Moreover, most of the participants who did not list family as the single most important source listed it as second or third. Another investigation found that family was overwhelmingly cited as the most important source of meaning in life by respondents in each of seven different countries scattered across three continents (Africa, Australia, and Europe) (Fave & Coppa, 2009). Although these findings provide compelling evidence that people report family is a major source of meaning in life, the designs of those investigations precluded conclusions about causality.

The present investigation sought to provide experimental evidence in order to establish whether thoughts of family have a causal influence on perceptions of life's meaningfulness. Furthermore, we sought build on previous work by examining *how* family relationships provide meaning in life. An interdisciplinary literature review by Baumeister (1991) concluded that the quest for meaning in life takes the form of satisfying four separate needs for meaning. We used that framework of four needs to formulate and test hypotheses about possible mediators of the link between family connection and a meaningful life. Put another way, we sought to ascertain which of the four needs for meaning are satisfied by family.

Four Needs for Meaning: Theory

Most people cannot readily articulate the meanings of their lives. The colloquially popular phrase “the meaning of life” implies that there is one single meaning, whereas in fact most people find meaning in multiple places such as family, work, religion, tradition, and political participation. Acknowledging this multiplicity, Baumeister (1991) proposed that the questions rather than the answers were the unifying themes needed for social scientists to understand life’s meaning. That is, rather than have a single source of meaning that would be correct and effective for everyone, he proposed there are four basic needs for meaning. To have a meaningful life, the person would have to have some combination of activities and involvements that would satisfy each of the four.

The four needs for meaning are as follows. First, a need for *purpose* relates current life activities to future (possible) outcomes and events, from which the present draws meaning and which can organize and guide present decisions. Second, need for *value and justification* entails having a basis for understanding what is right vs. wrong and being able to construe most of one’s actions as right (as well as being able to choose how to act right). Third, *efficacy* means being able to have an effect on the world, without which purpose and justification are rather empty shells. Fourth, *self-worth* involves having some basis for regarding oneself as a valuable person, often as superior to others.

Family Relations May Satisfy All Four Needs for Meaning

In principle, family can help satisfy all four needs for meaning. That versatility could plausibly help explain why family should figure prominently in people’s meanings of life. Family provides purpose, such as when people seek to form a family, to provide for children, or to live up to parental expectations. Family is a major source of value, insofar as doing things to benefit one’s family is regarded as right and good, without needing further justification. The value aspect is also evident in that most people learn their first lessons about right and wrong from family members. Efficacy too can be gotten within the family, insofar as one can have a discernible impact on other family members in large and small ways, including feeding them,

making them laugh or cry, helping them get started in life, and indeed in some cases bringing them to life in the first place. Last, family can confer a sense of self-worth in many ways, both individually (such as by celebrating one's achievements) and collectively (pride from belonging to the family group).

A smattering of evidence has lent plausibility to the hypotheses that family relations help satisfy the specific needs. McCall and Simmons (1966) suggested that fulfilling one's role within the family helps people see themselves and their lives as part of a bigger picture, and in that sense it furnishes a sense of purpose and value. Franco and Levitt (1998) showed that family support contributed substantially to self-esteem among children.

Nevertheless, these findings are scattered across different fields and pertain only indirectly or partially to the question of how family relationships contribute to a meaningful life. The present studies sought to provide direct tests of the possible links between family relations, the four needs, and the perception of life as meaningful. Our initial hypothesis was that all four needs would mediate between family and meaningfulness. We had no a priori reason to think that any need would be more or less relevant than any other.

Study 1

As foundation to the main investigation, we first sought to establish a causal relationship between thinking about family and increased ratings of life as meaningful. As reviewed in the introduction, prior work has established that people cite family as a source of meaning in life, but have not tested this link experimentally nor tested direction of effects.

Specifically, people first were assigned to have thoughts about family, and then we had them rate the degree to which they found life meaningful. Obviously, to have people list ways that family enhanced the meaning of life would maximize any contribution to rating life as meaningful and possibly create demand characteristics, so we did not use that for a manipulation. Instead, we used a manipulation that involved two sets of contrary imaginings. Insofar as contradiction reduces meaning, we thought this might avoid the problem of triviality and demand

characteristics. Specifically, participants were assigned first to imagine separation from their family and then to imagine reunion with them.

Separation and reunion could activate thoughts of loneliness, and past work has indicated that loneliness is associated with a reduction in sense of life as meaningful (Stillman et al., 2009). Therefore we controlled for loneliness. Also, separation and reunion also evoke emotion, and past work has linked emotional states with changes in perception of life as meaningful (Hicks & King, 2007), so we also measured and controlled for emotion. The hypothesis was that the thoughts about family would produce an increase in rating of life as meaningful, independent of loneliness and emotion.

Method

Participants

Participants consisted of 228 (182 female) undergraduate students who participated in exchange for extra credit in an introductory class on families across the lifespan. Participants ranged in age from 18 to 54 with a median age of 19.

Design and Procedure

Participants agreed to participate in the study and received extra credit for their participation. They completed the UCLA loneliness scale (Hays & DiMatteo, 1987) and then were randomly assigned to a family prime condition or a neutral condition. Participants completed their assigned activity followed by a manipulation check, the state meaning scale, and the PANAS.

Family prime condition. After completing the loneliness measure, the 117 participants assigned to the family prime condition were given the following instructions: *Please take your hand off the mouse, close your eyes, and consciously disengage from unpleasant mental and emotional reactions by shifting attention to the heart. For a few minutes, focus on imagining a life in which your family was no longer able to be with you or communicate with you. In the*

space below, please describe your reaction and thoughts concerning life without contact with your family.

Once participants had written a paragraph about their thoughts they were given the following follow-up question: *“Now, imagine that you are reunited with your family. Describe your thoughts and feelings about that and why you are glad or sad to have them back.”* Participants were then told to *“Write one more paragraph describing what it is you value most about your family.”* Participants then completed the manipulation check and meaningfulness measure.

Neutral condition. After completing the loneliness measure, the 111 participants assigned to the neutral condition were given the following instructions: *For a few minutes, focus on imagining a situation in which someone doesn't know how to fill up a tank of gas. You need to explain to this person every detailed step in how to fill up a tank of gas. In the space below, please describe, step-by-step how to fill up a tank of gas.*

Once participants had completed that activity they were instructed to *“Imagine that this person needs directions on how to get from this particular gas station near campus to your apartment. Please give detailed instructions below.”* Participants then completed the manipulation check and meaningfulness measure.

Measures

Loneliness. Ongoing social exclusion was assessed with an 8-item UCLA Loneliness Scale short form ($\alpha = .86$; UCLA-8; Hays & DiMatteo, 1987). Sample items include “I feel left out” and “I feel isolated from others.”

State meaningfulness. State meaningfulness was assessed using a 3-item measure ($\alpha=.96$) that included the items “How much meaning do you feel in your life at this very moment?,” “How much do you feel your life has purpose right now?,” and “At this moment, how much do you think you have a good sense of what makes life meaningful?” Responses range from 1 to 15, with larger numbers corresponding to greater meaning.

Positive and Negative Affect Scale. Positive affect was measured using the Positive and Negative Affect Scales (PANAS), which is a 20-item, widely-used measure of positive (e.g., “excited”) and negative affect (e.g., “upset”) (Watson, Clark, & Tellegen, 1988). We included both the positive ($\alpha=.95$) and negative affect ($\alpha=.92$) subscales in the analysis of the current study to verify that between group differences were not due simply to altering participants’ positive or negative affect.

Results

Loneliness

A one-way ANOVA was conducted to determine whether there were differences by condition in loneliness. Participants in the family prime condition reported higher loneliness scores ($M=15.03$, $SD=4.33$) than those in the neutral condition ($M=13.64$, $SD=4.34$), $F(1, 230)=5.91$, $p<.05$. Therefore, we controlled for this difference in subsequent analysis.

Manipulation Check

To determine whether the manipulation was effective at priming family, a manipulation check was administered directly after the manipulation to see if thoughts of family had been activated. Participants were asked to rate their level of agreement with the following statement, “At this very moment, my family is on my mind.” A one-way ANOVA was conducted to determine if there were differences by condition. As predicted, participants in the family prime condition reported higher agreement ($M=6.17$, $SD=1.15$) than those in the neutral condition ($M=4.38$, $SD=1.91$), $F(1, 230)=75.52$, $p<.001$.

Family and Meaningfulness

The main hypothesis was supported. Analysis of covariance (ANCOVA), with loneliness as a covariate, revealed that participants in the family prime condition had higher meaningfulness scores ($M=36.74$ out of 45, $SD=7.22$) than those in the neutral condition ($M=35.45$, $SD=9.22$), $F(228)=7.05$, $p<.01$) $\eta^2_p=.03$.

Emotion as Mediator?

Given that thoughts of family would be likely to elicit positive emotion, we wanted to rule out the alternative hypothesis that the mean differences we found were actually due to changes in positive or negative affect rather than thinking of family. To do so we conducted two one-way ANOVAs using scores on the positive affect (PA) and negative affect (NA) subscales of the PANAS as dependent variables. Results revealed no difference between participants in the family prime condition versus those in the neutral condition in terms of their PA, $F(1, 221) = 1.20, p = .28$ or NA, $F(1, 224) = 1.47, p = .24$. We also controlled for PA and NA in subsequent analyses of covariance (ANCOVAs). When PA and NA were statistically controlled, condition was still significantly related to meaningfulness, $F(1, 216) = 3.95; p < .05$. These findings show that current difference in meaning was most likely not due to overall differences in positive affect or negative affect.

Discussion

Participants who imagined having lost contact with their families and then imagined being reunited with them rated their lives as more meaningful than participants who imagined explaining how to fill a gas tank and then giving directions. These results were not mediated by emotional reactions, even though one might intuitively expect that there would be emotional repercussions from imagining family separation followed by reunion. Thus, the results of Study 1 were consistent with our hypothesis that thinking about family relationships would enhance one's perception of life meaning. This fits the broader hypothesis that family has a causal effect of increasing the sense of life as meaningful.

Study 2

The purpose of Study 2 was to test the plausibility of the four needs for meaning as mediators of the relationship between family and meaning. We tested this using a cross-sectional design and a new method for analyzing multiple mediators—the Preacher and Hayes (in press) technique.

Method

Participants and Procedure

Participants were 220 (193 female) undergraduates, who took part in the study for partial course credit. Participants ranged in age from 17 to 55 with the median age being 20. After giving informed consent, participants completed the questionnaire online at a time of their choosing.

Independent, Dependent, and Mediating Variables

Family support. The independent variable was family support. Family support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS; Canty-Mitchell & Zimet, 2000). The MSPSS contains three 4-item subscales, one of which assesses perceived social support from family (e.g., “I get the emotional help and support I need from my family;” $\alpha = .92$).

Meaningfulness. The Meaning in Life Questionnaire (meaning presence subscale) was again used to assess the extent to which participants viewed their lives as meaningful (MLQ; Steger, Frazier, Oishi, & Kaler 2006). Example items included, “I understand my life’s meaning” and “I have a good sense of what makes my life meaningful.” Responses ranged from 1 to 7 corresponding with greater meaningfulness. Cronbach’s Alpha for the meaning presence was .93 in the present sample.

Purpose. Purpose was a 4-item measure formed by combining the two items from Krause’s (2004) purpose subscale (e.g., “In my life, I have goals and aims,”) as well as two relevant items from the Personal Growth Initiative Scale (Robitschek, 1998) (e.g., “I have a specific action plan to help me reach my goals.”). Responses range from 1 to 7, corresponding to greater purpose. The alpha for this 5-item measure was .93 in the present sample, which indicates that the five items were quite coherent and presumably measured the same construct.

Values. We used Krause’s (2004) two-item values subscale that included the items “I have a system of values and beliefs that guide my daily activities,” and “I have a philosophy of

life that helps me understand who I am.” The items correlated with each other $r = .76$ in the present sample.

Efficacy. We used the 8-item internality dimension of Levenson’s (1973) locus of control scale to measure efficacy. Example items include “Whether or not I get to be a leader depends mostly on my ability” and “My life is determined by my own actions.” Responses range from 1 to 7, corresponding to greater efficacy and the alpha for this measure was $.76$ in the present sample.

Self-worth. To measure self-worth, we used Rosenberg’s (1965) 10-item, global measure of self-esteem. Example items include “On the whole, I am satisfied with myself” and “I feel that I’m a person of worth, at least on an equal plane with others.” Responses range from 1 to 4, corresponding to greater self-esteem. Cronbach’s Alpha for self-worth was $.89$ in the present sample.

Results and Discussion

To test whether the four needs for meaning functioned as mediators between family and meaningfulness, we used a method developed Preacher and Hayes (in press) to test multiple mediator models. A confidence interval for the size of the indirect path is generated and if the values between the upper and lower confidence limit do not include zero this indicates a statistically significant mediation effect. In Table 1, we show the percentile confidence interval for each mediator and each contrast we tested to see whether indirect effects differed in magnitude. We also followed the procedures recommended by Preacher and Hayes to correct bias in the confidence intervals, in order to ascertain whether our findings would remain even when correcting for bias. All the intervals we present were bias-corrected intervals.

The indirect paths of purpose, self-worth, and values were statistically significant, as indicated by finding that the 95% Confidence Interval (bias corrected) for the indirect path through these mediators did not include zero. Specifically, the indirect path through purpose was $.02$ to $.16$. For self-worth it was $.06$ to $.17$, and for values it was $.01$ to $.09$. The confidence

intervals for efficacy (-.01 to .07) did pass through zero, indicating that it was not a significant mediator. Thus, three of the four of the needs for meaning mediated between family and perceived meaningfulness (See Table 1).

All but one of the 95% confidence intervals for all contrasts between mediators passed through zero (efficacy versus self-worth), indicating that the magnitude of no single mediator was significantly greater than any other besides the magnitude of self-worth over efficacy. Although these data provide data linking needs to life meaning direction of effects is unclear owing to the correlational nature of the data. Moreover, it remains to establish that thoughts of family influence these needs.

Study 3

The objective of Study 3 was to provide an experimental test of the four needs for meaning as mediators of the relationship between family and perceived meaningfulness. We hypothesized that, consistent with the results of Study 2, thinking about family would enhance one's perceived meaning, purpose, values, and self-worth, as well as enhance a sense of belongingness. Furthermore, we predicted that these variables would mediate the relationship between thoughts about family and perceived life meaning.

Method

Participants

The sample comprised 123 undergraduates (105 female) who completed all relevant measures at both time points. Participants ranged in age from 18 to 27 years and their median age was 21.

Procedure

After completing demographic information, participants were randomly assigned into one of two conditions: thoughts of family condition or a neutral condition.

Thoughts of family condition. The 61 participants assigned to this condition were given the following instructions: "*Please take your hand off the mouse, close your eyes, and*

consciously disengage from unpleasant mental and emotional reactions by shifting attention to the heart. Please close your eyes and take a few minutes to think about each member in your immediate family.” They were then asked to write a full paragraph describing their relationship with each member of their immediate family. Once they had completed that activity they were asked to “Please write a paragraph about one of your favorite experiences you have had with your family” and then finally to “write one more paragraph describing what it is you value most about your family.”

Neutral condition. The 62 participants assigned to this condition were given the following instructions: “*Please take your hand off the mouse, close your eyes, and consciously disengage from unpleasant mental and emotional reactions by shifting attention to the heart. Please close your eyes and focus on imagining a situation in which someone doesn’t know how to fill up a tank of gas. You need to explain to this person every detailed step in how to fill up a tank of gas.*” They were then asked to write a full paragraph describing step-by-step how to fill up a tank of gas. Once they had completed that activity they were asked to describe how to get from the gas station to their apartment and finally to describe the place where they live. These tasks were designed to engage people in a similar activity (relaxing and thinking), without priming any emotions in particular.

Measures

State meaningfulness was assessed using a 3-item measure ($\alpha=.95$) that comprised the items “How much meaning do you feel in your life at this very moment?,” “How much do you feel your life has purpose right now?,” and “At this moment, how much do you think you have a good sense of what makes life meaningful?” Responses range from 1 to 15, with larger numbers corresponding to greater meaning. All the measures for the four needs for meaning were the same as those used in Study 2 (Purpose $\alpha=.88$; Values $r=.75$; Efficacy $\alpha=.77$, Self-worth $\alpha=.87$). *Positive affect* ($\alpha=.92$) was measured using the 10 item positive dimension of the Positive and Negative Affect Scales (PANAS), which is a widely-used measure of positive affect (Watson,

Clark, & Tellegen, 1988). We included it in the current study to verify that between group differences were not due simply to altering participants' affective state.

Results

Effect of Family Prime

Meaningfulness. As hypothesized, and conceptually replicating Study 1, analysis of variance revealed that participants in the family prime condition had higher meaningfulness scores ($M=38.39$, $SD=7.00$, $F(123)=5.43$, $p < .05$) than those in the neutral condition ($M=35.61$, $SD=6.22$ out of 45) $\eta^2_p=.04$.

Four Needs. The family prime led to positive changes with respect to two out of the four needs for meaning. Specifically, thinking about family led to higher purpose and efficacy. Analysis of variance (ANOVA) indicated that participants in the family prime condition had higher purpose scores ($M=23.79$, $SD=3.56$) than those in the neutral condition ($M=22.47$, $SD=3.37$), $F(121)=4.38$, $p < .05$, $\eta^2_p = .03$. Likewise, people in the family condition reported higher efficacy scores ($M = 39.47$, $SD = 6.52$,) than those in the neutral condition ($M = 36.56$, $SD=7.25$), $F(113)=5.10$, $p < .05$, $\eta^2_p=.04$. Priming with family also produced trends toward scoring higher on the other two categories of meaning, namely values and self-worth, but these trends fell short of significance.

Mediation Analysis

To test for mediation we again used the multiple mediator model developed by Preacher and Hayes (in press). In Table 2, we show the percentile confidence interval for each mediator and each contrast. We also present the bias-corrected intervals to demonstrate that our findings remained significant even when correcting for bias. All the intervals we present were bias corrected intervals.

We found that the indirect path involving purpose was statistically significant (95% bias corrected confidence interval was .06 to 2.38) indicating that purpose mediated the relationship

between condition and meaning. Conversely, the confidence intervals for efficacy (-1.03 to .07) did pass through zero, indicating that it was not a significant mediator.

Ruling out an alternative hypothesis. Given that the manipulation may have differentially impacted affect, we sought to rule out the alternative hypothesis that emotion was driving our findings. To do so we conducted two one-way ANOVAs using scores on the positive affect (PA) subscale of the PANAS as dependent measures. Results revealed no difference between participants in the family condition versus those in the neutral condition in terms of their PA, $F(1, 113) = .28, p = .60$. We also controlled for this affect dimension in our analyses. Controlling for positive affect, still yielded a significant main effect for the family prime condition on meaning scores $F(1, 112) = 3.83, p = .05$, purpose $F(1, 112) = 3.85, p = .05$, and efficacy $F(1, 107) = 5.51, p = .02$. These findings show that the findings were not due to overall differences in positive affect.

Discussion

In summary, participants who thought and wrote about their families, compared with those who thought about a neutral control topic, reported higher scores on meaning, purpose, and efficacy. Purpose mediated the relationship between experimental condition and meaning. Given the results of Study 2, we did not expect efficacy to mediate the relationship between family and meaning. Self-worth and values were not evaluated as mediators since the manipulation did not have a significant effect on these variables. One way to make sense of the null effect of family priming on values and self-worth are that these variables are more trait-like in nature and not prone to fluctuate during the brief duration of the experiment.

General Discussion

Across three studies we found evidence for a relationship between family and meaning. Study 1 built on prior correlational research by showing that thinking about family caused people to rate their lives as more meaningful than people who had thought about a neutral topic. Having provided experimental evidence for a causal relationship between family relationships and

meaning, we sought to identify mechanisms for this relationship in Studies 2 and 3 and used Baumeister's (1991) four needs for meaning theory as our basis. We used a cross-sectional design in Study 2 and found that three of the four needs for meaning—purpose, values, and self-worth (but not efficacy)—mediated the relationship between family support and perceived meaningfulness. In Study 3 we tested these mediators with an experimental design to determine whether thinking about family is causally related to any of the four needs for meaning. As anticipated, participants who wrote about their family reported more meaning, purpose, and efficacy than those who thought about a neutral control topic. Moreover, purpose mediated the relationship between experimental condition and meaning.

Purpose was the only need for meaning that mediated the causal relationship between thoughts of one's family and a stronger sense of meaning. Thus, family increases the sense that one's life has direction and that one is building something for the future. This sense of purpose then translates into the perception that one's life has meaning.

Limitations and Future Directions

The current studies were limited in that all participants comprised undergraduate students, which is not a representative sample. The samples also reported exclusively on the meaning they derived from their family of origin. Future research should examine family and the four needs for meaning among an older sample that would report on their family of progeny. This would allow for a helpful comparison between the level of meaning family provides an individual at different stages of the life course.

Baumeister suggested that in order to achieve a meaningful life, four simple needs must be met and Study 2 provided data consistent with this hypothesis. A person must feel that he or she has purpose, values, efficacy, and self-worth to feel complete. As demonstrated in Study 3, families can be instrumental in satisfying some of these needs, thereby increasing meaning in life. Nonetheless, families often face challenging financial situations, marriage problems, and crises involving their children. Another direction for future research would be to examine

whether and under what conditions a family undergoing significant strain can meet the four needs for meaning.

Conclusion

The current studies contribute to the literature by adding experimental evidence to existing findings (e.g., Fave & Coppa; Lambert, et al., 2009) that have previously demonstrated a relationship between family and meaning. In addition, the current studies provide evidence for a mechanism (or mechanisms) for this relationship—the four needs for meaning. We tested these mechanisms with both cross-sectional and experimental designs and purpose seems to be the most robust mediator. The current studies also advance Baumeister's (1991) four needs of meaning theory forward as they provide an empirical test of the theory. We conclude that family relationships are an important source of meaning in life and that they accomplish this by helping to satisfy some of the needs for meaning, most notably a sense of purpose but perhaps also self-worth and value.

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Table 1

*Mediation of the Family on Meaningfulness Through Purpose, Efficacy, Values and Self-worth**(n = 220)*

Model	Product of Coefficients			Bootstrapping			
	<i>Point Estimate</i>	<i>SE</i>	<i>Z</i>	Percentile 95% CI		BC 95% CI	
				<i>Lower</i>	<i>Higher</i>	<i>Lower</i>	<i>Higher</i>
Indirect Effects							
Purpose	.07	.02	2.92	.01	.14	.02	.16
Efficacy	.03	.02	1.85	-.01	.06	-.01	.07
Values	.04	.02	2.30	.01	.08	.01	.09
Self-worth	.10	.03	3.87	.05	.17	.06	.17
TOTAL	.25	.05	5.42	.15	.35	.15	.35
Contrasts							
Purpose/Efficacy	.04	.03	1.36	-.03	.13	-.02	.14
Purpose/Values	.03	.03	1.03	-.04	.12	-.04	.12
Purpose/Self-worth	-.03	.04	-.95	-.13	.07	-.12	.07
Efficacy/Values	-.01	.02	-.47	-.06	.04	-.07	.03
Efficacy/Self-worth	-.08	.03	-2.45	-.14	-.01	-.14	-.01
Values/Self-worth	-.06	.03	-2.08	-.13	-.01	-.13	.01

Note: BC = bias corrected; 5,000 bootstrap samples.

Table 2

Mediation of the Family on Meaningfulness Through Purpose, Efficacy, (n = 114)

Model	Product of Coefficients			Bootstrapping			
	<i>Point Estimate</i>	<i>SE</i>	<i>Z</i>	Percentile 95% CI		BC 95% CI	
				<i>Lower</i>	<i>Higher</i>	<i>Lower</i>	<i>Higher</i>
Indirect Effects							
Purpose	.76	.47	1.63	-.08	2.01	.07	2.44
Efficacy	-.29	.24	-1.20	-.94	.13	-1.03	.07
Values	.08	.20	.40	-.35	.59	-.27	.70
Self Worth							
	.26	.51	.51	-.82	1.36	-.80	1.36
TOTAL	.81	.93	.87	-.09	-.04	-1.02	2.89
Contrasts							
Purpose/Efficacy	1.05	.58	1.81	.03	2.50	.152	2.79
Purpose/Values	.68	.42	1.62	-.20	1.89	-.05	2.29
Purpose/Self-worth	.50	.50	.10	-.68	1.66	-.65	1.73
Efficacy/Values	-.37	.34	-1.07	-1.28	.28	-1.31	.24
Efficacy/Self-worth	-.55	.59	-.93	-1.93	.61	-2.04	.55
Values/Self-worth	-.18	.47	-.39	-1.21	.85	-1.27	.78

Note: BC = bias corrected; 5,000 bootstrap samples.