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THE MEASUREMENT OF MEANING IN ILLNESS

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Abstract—A scale is presented that operationalizes the concept of meaning as it is constructed within the context of life-threatening illness. Development of the scale is based on a symbolic interactionist perspective. The reliability and validity of the scale are examined using a sample of 422 persons with a variety of types of cancer at specified points in the illness trajectory. The scale was found to have item-total correlations ranging from 0.50 to 0.73, all significant at $P < 0.01$, and a Cronbach's alpha of 0.81. A factor analysis indicated the total scale explained 57.3% of the variance. Evidence of the scale's validity was found in its ability to differentiate persons who were newly diagnosed as having non-metastatic cancer from those individuals experiencing the first recurrence of cancer and those with metastatic disease, as well as individuals experiencing a first remission from those experiencing a first recurrence or those with metastatic disease. In addition, using regression analysis meaning was found to be predicted by social support and specific coping strategies, and to be predictive of personal control, body image and psychological adjustment. A bi-directional relationship was demonstrated between the construction of meaning (primarily a cognitive phenomenon) and emotional response, which is congruent with the bi-directional relationship between cognition and emotion as proposed in the theory of Lazarus and Folkman.

Key words—meaning, cancer, coping, adaptation

INTRODUCTION

Increasing interest and attention is being directed toward the concept of meaning relative to life-threatening illness. In particular, it is suggested that meaning affects coping behavior [1–3], that the meaning individuals develop concerning their illness has an impact on their psychosocial well-being [4], and that it is meaning which enables persons with cancer to develop a sense of coherence relative to their life experiences [5–8].

Important theoretical work has been done on the concept of meaning as it pertains to negative life events that suggests its significance as a dimension of response to crises, for example, the work of Antonovosky [7], Marris [8] and Frankl [9]. Several qualitative studies have also provided empirical evidence of the importance of meaning by describing its role in adaptation [1–3, 5, 6, 10]. Given this demonstrated significance of the concept in relationship to negative life events such as serious illness, what is currently needed is a measure that operationalizes meaning and permits systematic evaluation of its relationship to other variables determined to be significant aspects of adaptation to negative life events. Only then can the impact and the specific functions of this phenomenon be more clearly understood. The *purpose of this paper* is to present a scale based on symbolic interactionist theory that operationalizes the concept of meaning as it is constructed within the context of life-threatening illness, and to provide evidence of the scale's reliability and validity.

BACKGROUND

There are several empirical studies reported in the literature that contribute to understanding meaning with respect to illness, and therefore to the development of an instrument for its measurement. Taylor [10] studied meaning as it relates to attribution theory through interviews with 78 women diagnosed as having breast cancer and with 62 of their significant others. The investigators found that 95% of these women and 63% of their significant others had made a concerted effort to understand why they developed cancer. The attributions made by many of these individuals pointed to a linkage between the *meaning* persons developed and their struggle to obtain a sense of *mastery*.

Utilizing interviews, O'Connor *et al.* [5] also studied what is involved in the process of individuals' search for meaning when they have recently been diagnosed as having cancer. Two factors were found to be significant in facilitating the process. The first was social support from family and friends expressed in the caring of on-going reciprocal relationships, while the second included religious beliefs and personal faith, which also involved an element of spiritual support. Meaning in this study revolved around several themes, including the personal significance and consequences of the diagnosis and a change in outlook toward self, life and others.

Both Haberman [6] and Steeves [1] examined meaning within the specific context of bone marrow transplantion using a qualitative approach. One aspect of the work of both investigators was the role of

personal meaning in coping and regulating behavior. Both studies found that individuals sought meaning as a way of understanding the experience and situating it within their life-schemas, and this understanding subsequently influenced behavior—as Steeves [1] stated, it is the meaning individuals construct that makes coping behaviors possible.

Lewis [4] incorporated Crumbaugh's [11] Purpose-In-Life Test, which does not refer specifically to the illness experience, but measures the extent to which individuals perceive their personal existence and their world as having meaning or purpose. She evaluated the impact of meaning, as defined in this sense, on the *anxiety* and *self-esteem* of 57 adults with advanced cancer. These two variables are considered to be theoretically important in the process of adaptation to serious illness, and the extent to which persons attributed meaning to their illness was a significant predictor of both variables.

Finally, Barkwell [2] evaluated the impact of the *meaning* individuals ascribed to their pain on the *levels* of pain and depression they actually experienced. A classification of the meaning of pain developed by Lipowski [3] was used, which included eight categories that ranged from challenge to punishment. The data were analyzed using analysis of variance, and findings indicated that individuals' perceptions of their pain with respect to meaning influenced the levels of pain and depression they experienced, as well as their ability to cope with the pain.

DEFINING MEANING

Meaning is primarily a cognitive phenomenon that arises in response to specific situations and events, and it is a central factor in the process of social adjustment to everyday existence [12]. Moreover, it is a fundamental dimension of personal identity that must be taken into account if we are to adequately understand individuals' responses and adjustment to life-threatening illness [13]. A symbolic interactionist perspective of meaning was utilized as the basis for the development of this measure, because it focuses on the construction of life experiences as they are occurring and on the role of meaning in the individual's interpretation of events as they unfold. It is assumed these interpretations subsequently influence behavior, and the importance of situational factors is emphasized [14–16]. Similarly, coping and adaptation are processual [17, 18]; therefore, the assumptions are made in this research that meaning changes across time as individuals cope with the crisis of the illness, and that both meaning and coping are influenced by the process of reinterpretation.

In this paper meaning refers to the individual's understanding of the implications an illness has for his/her identity and for the future. Specifically, it pertains to individuals' perceptions of their ability to accomplish future goals, to maintain the viability of interpersonal relationships, and to sustain a sense of personal vitality, competence and power. An important aspect of the coping process is the struggle to maintain a sense of meaning that is not devastating to the self, and which allows the individual to maintain a sense of wholeness and personal integrity. For a detailed theoretical discussion of the concept of meaning, its role in relationship to life-threatening illness as it pertains to the specific measure discussed in this paper, and the relationship of the measure to symbolic interactionist theory, see Fife [19].

DESCRIPTION OF THE SCALE

The *Constructed Meaning Scale* was designed for the purpose of providing a measure of the meaning that is formulated by individuals as they strive to adapt to life-threatening illness. It is based on the definition of meaning just discussed, and on interviews conducted with individuals undergoing treatment for cancer [19]. It is a self-report measure that includes statements which refer to the impact of the illness on the individual's sense of identity, on interpersonal relationships, and on the individual's sense of what the future holds. The scale includes eight statements, each with four possible responses on a scale of 1–4: strongly disagree; disagree; agree; strongly agree. Responses are coded so that the highest score possible, 32, is indicative of the most positive meaning, while the lowest score, 8, indicates a very negative sense of the meaning the illness holds for one's self and for one's future life. Specific items included in this measure can be found in Table 1.

METHODS

Sample

The reliability and validity of the constructed meaning scale were assessed utilizing data from questionnaires completed by a sample of 422 persons diagnosed as having cancer. A variety of types of cancer was represented in the sample, with the most common forms being breast, colon, lung, prostate, testicular and lymphoma. The data utilized in this study are from a larger research project based on a cross-sectional design that includes four specific groups:

Table 1. The constructed meaning scale

1. I feel cancer is something I will never recover from.
2. I feel cancer is serious, but I will be able to return to life as it was before my illness.
3. I feel cancer has changed my life permanently so it will never be as good again.
4. I feel I have made a complete recovery from my illness.
5. I feel that I am the same person as I was before my illness.
6. I feel that my relationships with other people have not been negatively affected by my illness.
7. I feel that my experience with cancer has made me a better person.
8. I feel that having cancer has interfered with my achievement of the most important goals I have set for myself.

group 1— newly diagnosed persons, one to four months following diagnosis ($N=138$);
group 2— persons in first remission, one to two years following treatment ($N=118$);
group 3— persons one to three months following a first recurrence or the development of a second primary lesion, without metastatic disease ($N=51$);
group 4— persons with metastatic disease ($N=115$), including persons who were newly diagnosed, those who had a first recurrence or second primary, and those with a lengthy illness.

It is important to note that the N in each group is based on the number of questionnaires returned, and there are a few instances of missing data in the analyses when individuals chose not to complete a particular section of the questionnaire.

Individuals in the sample ranged from 18 to 80 years of age, with the mean being 52.3 years. One hundred and fifty-eight men and 264 women participated in the study; approx. 9% were black, the remainder were caucasian, and approx. 12% were of low socio-economic status, while the remainder were of middle or upper socio-economic status.

Measurement

Instruments selected for evaluating the validity of the constructed meaning scale included measures of variables demonstrated in past research to be theoretically associated with meaning, as it has been defined in this paper and discussed in the literature. These scales also provided measures of variables demonstrated to be theoretically significant aspects of coping and adaptation.

Emotional distress was measured using the Bi-Polar Profile of Mood States, or the Bi-Polar POMS [20], a widely used scale with demonstrated validity and reliability. It was developed to measure specific dimensions of mood in terms of six *bi-polar affective* states: composed–anxious; elated–depressed; agreeable–hostile; energetic–tired; clearheaded–confused; and confident–unsure. This particular measure was selected because interview data have indicated that persons coping with cancer experience positive as well as negative emotions [19].

Because it is likely that efforts to deal with the stress of living with cancer influence the meaning persons construct relative to their illness, a modified version of the *Ways of Coping Checklist* [21] was utilized to assess the specific strategies individuals employed to cope with the negative impact cancer had on their lives. This scale had been altered by Dunkel-Schetter and Taylor [21] for use in a study of persons coping with cancer. The version used for this research further modified the work of these authors to include additional items noted to be of importance for this population and deleting others, based on qualitative interview data [19]. Factor analysis was carried out on the items and five sub-scales were delineated: positive focusing; active coping; seeking social support; avoidance; and seeking spiritual support. Each of these sub-scales was found to have a single underlying construct, and the number of items in each sub-scale ranged from five for the spiritual support scale to ten for the scale measuring active coping. This modified version of the scale included 35 items. The percent of variance explained by each sub-scale ranged from 46.3 to 69.1%. Cronbach's alpha coefficients reflecting the level of internal consistency for each sub-scale ranged from 0.71 to 0.88.

Denial, which was considered to be a coping strategy in this research, was defined and measured by the Personal Opinion Survey [22]. This scale was designed for research with cancer patients under the assumption that denial is a cognitive coping strategy used to manage emotional distress resulting from the illness. In this study, the strong correlations between this variable and those measuring emotional response utilizing the bi-polar POMS supported this assumption; that is, high levels of denial were associated with positive emotional response. Correlation coefficients ranged from 0.32 to 0.51 and were significant at $P<0.01$. The measure contained a total of eight items with responses on a five-point Likert scale. A Cronbach's alpha coefficient of reliability in the present data set was 0.72. Factor analysis revealed two underlying constructs explaining a total of 53.4% of the variance.

Social support is defined by Thoits [23] as a coping resource; therefore, when understood from this theoretical perspective the support of others would be expected to influence the construction of meaning, or the individual's perception of the illness. There are several approaches to measuring social support [24]; however, support was defined for purposes of this research as *perceived support*. Three specific sources were differentiated: *family members*; *friends*; and *health care professionals*. A separate scale was used to evaluate the perception of support from each source. Those used to measure support from *family* and *friends* were modifications of scales developed by Procidano and Heller [25]. The ten items pertaining to emotional support were selected from the original twenty items of each scale and the response set was changed from 'yes,' 'no' and 'don't know' to a Likert scale that included four possible responses: strongly agree to strongly disagree. Both the family and friends' scales were factor analyzed and each was found to represent a single underlying construct, with factor loadings that ranged from 0.57 to 0.83. The underlying construct on the family support scale explained 53% of the variance, while on the friends' support scale it explained 57%. Cronbach's alpha for both scales was 0.91.

No adequate measure of *professional support* was available; therefore, a scale containing eight items that are congruent with items on the family and friends' support measures was developed for purposes of this research. The same scaling format was used. Factor analysis revealed a single underlying construct that explained 49.9% of the variance, loadings on that

factor ranged from 0.54 to 0.84, and Cronbach's alpha was 0.84.

Two dimensions of the self that have been well documented in the literature as being highly vulnerable to the impact of a diagnosis of cancer were included: *personal control* and *body image* [26, 27]. *Personal control* was assessed by Pearlin and Schooler's [28] Mastery Scale, which was developed for use in stress research. It includes seven items with responses on a four-point Likert scale. The authors of the measure tested its internal consistency using principal components analysis, and loadings ranged from 0.47 to 0.76. The measure was also modeled using LISREL, and the unstandardized values ranged from 0.47 to 1.00 [29].

Body image was assessed utilizing a scale developed by this investigator. The scale was designed to take into account the problems related to particular aspects of body image that persons diagnosed as having cancer confront. The measure is comprised of six items on a four-point Likert scale, and it includes questions pertaining to issues such as one's satisfaction with his/her appearance, feelings of self-consciousness, and the extent to which individuals see their appearance being affected by cancer. Factor analysis revealed a single underlying construct explaining 55.7% of the variance, factor loadings ranged from 0.60 to 0.81, and Cronbach's alpha was 0.83.

Adaptation, or *coping outcome*, was evaluated utilizing the Psychological Adjustment to Illness Scale, or PAIS [30]. It is a widely used measure with established validity and reliability. It reflects psychosocial adjustment relative to six specific domains that are particularly relevant to individuals with cancer: vocational environment; domestic environment; sexuality; extended family relationships; social relationships; and psychological distress. In addition, there is a total score for the measure that incorporates all of these domains.

RESULTS AND DISCUSSION

Reliability

Reliability of the constructed meaning scale was assessed using item-total correlations, Cronbach's alpha, and factor analysis that indicated the degree to which items in the scale were parallel or measured a single phenomenon equally. [31].

The *item-total correlations* were substantial, with all coefficients being significant at $P < 0.01$, two-tailed (see Table 2). This provided strong support for the existence of homogeneity within the scale. *Cronbach's alpha* was also calculated and a coefficient of 0.81 was obtained, indicating that the correlations among items within the scale were attenuated very little by measurement error [32].

Principal components analysis without rotation was used to factor analyze the scale. As seen in Table 3, two factors emerged and a total of 57.3% of the variance was explained by these factors. Although two items loaded slightly higher on the second factor, their loadings on the first factor were substantial, and both items were consistent with theoretical dimensions of the measure [19]. The explanatory power of the scale was also increased when all eight items were included; therefore, despite the fact that statistically these two items formed a second factor, they were retained as part of the total scale. This decision was also based on the strong item-total correlations and the coefficient of reliability as given above.

Table 2. Item-total correlations of the constructed meaning scale

Items[a]	Coefficients
1	0.660*
2	0.700*
3	0.727*
4	0.676*
5	0.538*
6	0.566*
7	0.501*
8	0.717*

[a]See Table 1 for specific items.
*$P < 0.01$ (2-tailed).

Validity

Two fundamental types of *validity* were assessed in this study for the measure of constructed meaning: content validity and construct validity. *Content validity*, or the degree to which the measure reflected the specific domain of content under consideration [32], was supported by the fact that the items included in the scale were based on a conceptual formulation of meaning derived from symbolic interactionist theory [19]. Validity also came from the fact that the questions which comprised the scale were based on and supported by data obtained from interviews with persons living with cancer. A primary purpose of these interviews was to discern participants' perspectives of the meaning the illness held for their lives [19].

Construct validity of the constructed meaning scale, which focused on the extent to which the scale performed in accordance with theoretical expectations [32], was empirically supported in several ways. First, it is logical that individuals newly diagnosed as having non-metastatic cancer, or those who are in first remission would be likely to construct a more positive

Table 3. Factor loadings of items on the constructed meaning scale

Items[a]	Factor I	Factor II
1	0.681	−0.444
2	0.720	−0.218
3	0.754	−0.199
4	0.687	−0.177
5	0.525	0.645
6	0.570	0.642
7	0.512	0.023
8	0.746	0.021
Eigenvalue	3.441	1.144
Percent variance	43.0	14.3

[a]See Table 1 for specific items.

Table 4. *t*-Test difference of means on constructed meaning: the newly diagnosed and first remission groups vs the metastatic and the first recurrence groups

Group	*N* of cases	Mean	Standard deviation	*t* value	*df*	2-tailed problem
Newly diagnosed	133	23.42	4.14	2.59	244	0.000
Metastatic	113	20.82	4.74			
Newly diagnosed	133	23.42	4.14	3.13	188	0.002
First recurrence	50	21.16	4.87			
First remission	115	23.58	4.48	3.11	163	0.002
First recurrence	50	21.16	4.87			
First remission	115	23.58	4.48	4.52	226	0.000
Metastatic	113	20.82	4.74			

meaning regarding their illness than individuals experiencing the first recurrence of the illness, or than individuals with metastatic disease. It has been found that the first recurrence of cancer is a particularly devastating point in the illness trajectory when hopes for the success of the treatment and all which that implies are brought into question [33]. Furthermore, persons with metastatic disease are more likely to alter their expectations regarding the future, change some of their life goals, and experience changes in self perception and their relationships with others. Therefore, an important aspect of the construct validity of the scale was whether it distinguished these groups. As indicated in Table 4, a *t*-test difference of means revealed a significant difference between the groups based on data obtained by this measure of constructed meaning. A pooled variance estimate was used, since an *F*-test did not demonstrate a significant difference in the standard deviation among the groups.

Secondly, Lazarus' [34] and Zajonc's [35] work suggest that the construction of meaning, a cognitive variable, and emotional response would be correlated. As indicated in Table 5, meaning was significantly correlated with each emotional response variable, as measured by the Bi-Polar POMS [20]. That is, positive meaning was associated with the positive poles of the various emotional response dimensions. These results were also consistent with the findings of Lewis [4] and Barkwell [2] and their studies of meaning discussed above.

In addition, although the data were cross-sectional rather than longitudinal, regressions were carried out to evaluate the effect of meaning on emotion as well as the effect of emotion on meaning by interchanging the dependent variable. Anxiety, depression, and anger were the dimensions of emotion selected for this aspect of the analysis, because the literature indicates them to be commonly experienced by persons coping with cancer. All patient groups were included as a single sample in the analysis. Findings indicated each of these variables significantly affected the other; however, the coefficients (not shown) representing the effect of constructed meaning on anxiety, depression and anger were of greater statistical significance, and the effect of meaning remained consistent when variables representing social support and coping strategies were added to the regression. Conversely, the effects of depression, anxiety and anger on the construction of meaning were weaker and less consistent under the same conditions. These findings were congruent with results obtained using longitudinal data and this measure of constructed meaning in a sample of women coping with breast cancer [36].

Third, there were two variables in particular included within the data set used for this research that one would expect to be *predictive of the meaning* constructed by individuals confronting the stress of life-threatening illness: *social support* the individual receives from others, based on Thoits' [23] conceptualization of support as a coping resource, and the *strategies* used to cope with the stress of the illness and its treatment. To determine if in fact these causal relationships existed in the data for this study, constructed meaning was first regressed on three variables measuring specific sources of *perceived social support*: support from family, friends and professionals. The findings given in Table 6 indicated that support from all three sources was predictive of meaning; the greater the support perceived to come from these sources, the more positive the meaning individuals derived regarding the implications of the illness for their lives. These results were consistent with

Table 5. Correlation of meaning with emotional response variables

Variables[a]	Coefficients
Composed–Anxious	0.514*
Elated–Depressed	0.505*
Agreeable–Hostile	0.413*
Energetic–Tired	0.410*
Clearheaded–Confused	0.415*
Confident–Unsure	0.460*

*$P < 0.01$ (2-tailed).
[a]This scale is coded with a high score indicating a positive emotional response.

Table 6. Regression of constructed meaning on social support variables

Independent variables	Beta	*F*	*P*
Friends, support	0.222	19.844	0.000
Professional support	0.175	12.413	0.001
Family support	0.126	6.137	0.014
Constant	8.678		
R^2	0.145	22.105	0.000
df	394		

Table 7. Regression of constructed meaning on coping strategies

Independent variables	Beta	F	P
Active coping	0.016	0.108	0.742
Seek spiritual support	0.067	2.843	0.093
Seek social support	0.051	1.367	0.242
Avoidance	−0.331	40.806	0.000
Positive focusing	0.159	10.029	0.002
Denial	0.379	59.421	0.000
Constant	12.789		
R^2	0.341	28.910	0.000
df	342		

the findings of Byrne *et al.* [37] and Yalom *et al.* [38], and the assertion by Bloom [39] and Cella [40] that participation in support groups facilitated the formulation of a positive perspective of the illness. They were also congruent with the findings of O'Connor *et al.* [5] that the support of family members was one of the significant factors in the formulation of meaning.

Constructed meaning was also regressed on *denial* and on the five sub-scales of the revised Ways of Coping Checklist: *active coping*; *seeking social support*; *seeking spiritual support*; *avoidance*; *and positive focusing*. As indicated in Table 7, the use of denial, avoidance and positive focusing were predictive of the nature of the meaning individuals developed about their illness. It is important to note that denial, as measured by the Personal Opinion Survey [22], was an indicator of the extent to which the individual tended to minimize the impact of cancer on daily life, and therefore conceptually it differed from avoidance, which was defined by the use of such behaviors as sleeping more than usual, the use of medications, eating and drinking. Both the use of denial and positive focusing were associated with the development of a more positive meaning about the illness, while the use of avoidance was strongly related to the construction of negative meaning.

This latter relationship is consistent with the findings of Rohde *et al.* [41], that the use of escapism was strongly associated with depression. Similarly, Folkman *et al.* [42] found that while avoidance may provide a brief respite from distress, this type of coping was associated with symptoms of depression and anxiety, which in this study were correlated with negative meaning (see Table 5).

Construct validity was also evaluated by testing the predictive power of constructed meaning in relationship to two sets of variables that would be expected to be affected by meaning: measures of specific aspects of the self and a measure of adaptation. First, *personal control* and *body image* were regressed on constructed meaning. These are two particularly vulnerable aspects of the self for persons coping with cancer [10, 26, 27, 43–45]. As seen in Tables 8 and 9, constructed meaning alone explained 27 and 20% of the variance, respectively, in these two variables ($P < 0.00$). The finding pertaining to personal control was congruent with the findings of both Lewis [4] and Taylor [10] that the formulation of meaning was associated with an attempt to develop a sense of control or mastery.

Table 8. Regression of personal control on constructed meaning

Independent variable	Beta	F	P
Constructed meaning	0.519	148.348	0.00
Constant	10.412		
R^2	0.270		
df	403		

Finally, as seen in Table 10, when the total score for the PAIS [30] was regressed on constructed meaning alone, 35% of the variance was explained ($P < 0.000$). Given Lazarus and Folkman's [17] theory of coping, it would be expected that adaptation would be strongly influenced by cognitions related to the illness, as was demonstrated here.

CONCLUSIONS

Cancer disrupts virtually all aspects of life and affects persons' perceptions of themselves and their future. In an effort to adapt to the changes brought about by a crisis of this magnitude, individuals re-formulate these perceptions and attempt to develop a sense of the meaning of the illness [1, 2, 4–6, 10]. There is widespread agreement that the construction of meaning is a significant dimension of coping with life-threatening illness, and as Northouse [43] suggests, further research is needed to clarify how the meaning persons develop about their circumstances affects their ability to cope and adapt to the stress of the illness and its treatment. Moreover, the findings of this study, along with the work of other investigators and theorists, suggest the possibility that meaning has potential as a clinical marker of psychosocial vulnerability. Therefore, the relationship of meaning to other variables important to adaptation needs to be more clearly understood, which would be made possible by a measure of meaning relevant to individuals who are coping with a life-threatening illness.

The constructed meaning scale presented in this paper provides a measure of meaning developed from the symbolic interactionist perspective, with empirical evidence of its reliability and validity. The internal consistency of the scale was supported by a substantial Cronbach's alpha (0.81), which provides a conservative estimate of a measure's reliability [31]. Although factor analysis yielded two factors, each item in the

Table 9. Regression of body image on constructed meaning

Independent variable	Beta	F	P
Constructed meaning	0.446	101.078	0.000
Constant	10.018		
R^2	0.199		
df	408		

Table 10. Regression of psychological adjustment to illness[a] on constructed meaning

Independent variable	Beta	F	P
Constructed meaning	−0.545	221.128	0.000
Constant	78.323		
R^2	0.353		
df	406		

[a]This scale is coded with a low score indicating a positive adjustment.

scale contributed substantially to the primary factor as indicated by loadings of 0.51 and higher.

Construct validity was demonstrated by the sensitivity of the scale to individuals at different points in the illness trajectory—specifically those persons who were newly diagnosed as having cancer, those in first remission, those experiencing their first recurrence of the illness, and those with metastatic disease. Validity was also demonstrated by the fact that the conceptualization of meaning, as it was measured in this study, related in theoretically expected ways to measures of other constructs significant to the process of adaptation as indicated in the literature.

The empirical findings from this study, which included a substantial sample with adequate statistical power, provide evidence that this scale is ready for further testing that would include participants with diagnoses other than cancer. Ideally, comparative studies that include persons with cancer and persons with other life-threatening and/or debilitating illnesses would be a particularly useful step in examining both the concept of meaning and this scale relative to coping and adaptation.

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