Structuring the meaning of hope in health and illness

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Abstract

The purpose of this paper is to describe a conceptual model for hope that captures the personal meaning of this construct within the context of health and illness. To identify this model, a research tool was created based on the semantic differential technique, a well-validated and often used approach for quantifying personal or connotative meaning. This tool was distributed in the form of a questionnaire to a voluntary sample (n = 550), consisting of three primary subsamples: a healthy adult subsample (n = 146), a chronic and life-threatening illness subsample (n = 159) and a nursing subsample (n = 206). A multidimensional structure for the concept, Hope, was identified, using principal components analysis. Three primary factors defined this structure: personal spirit (personal dimension), risk (situational dimension) and authentic caring (interpersonal dimension). Personal spirit, a dominant factor, is characterized by a holistic configuration of hope elements, revolving around a core theme of meaning. Risk is primarily a predictability factor, targeted with an underlying component of boldness. The authentic caring factor has a substantial credibility component, linked with the theme of comfort. Three distinctive features characterize this model: (a) its ability to capture the dynamic qualitative experience of hope within a holistic multidimensional quantitative framework, (b) its representation of hope as a location in three-dimensional space and (c) its sensitivity to individual and group variability. This integrative model deepens our understanding of the experience of hope within health and illness at the theoretical, clinical and methodological levels. © 1999 Elsevier Science Ltd. All rights reserved.

Keywords: Hope; Meaning; Health; Illness; Semantic differential technique; Measurement

1. Introduction

Hope is positively linked to health. Most health care professionals inherently agree with this statement, based on their clinical observations. Documented case studies, of patients who have defied the odds or survived life-threatening events, acknowledge the therapeutic value of hope. Empirical findings support these clinical observations, suggesting that hope may promote healing (Gottschalk, 1985; Udelman and Udelman, 1985a,b, 1991; Cousins, 1989), facilitate the coping process (Herth, 1989; Elliott et al., 1991) and enhance quality of life (Staats, 1991). Clinicians, patients and health researchers share a common quest for strengthening this link between hope and health.

Despite this concerted effort, hope remains a complex construct that continues to elude health researchers. A diversity of definitions and models for hope present a major research challenge. Differing conceptual frameworks, ranging from unidimensional (Stotland, 1969; Snyder, 1994) to multidimensional models (Obayuwana and Carter, 1982; Hinds, 1984; Dufault and Martocchio, 1985; Owen, 1989), introduce confusing terminology and hinder generalizability of findings. The lack of empirical validation (Stotland, 1969; McGee, 1984) and the derivation from small, specific samples, such as elderly cancer patients (Dufault and Martocchio, 1985) or adolescents (Hinds, 1984; Hinds and Martin, 1988), further limit current frameworks.

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These limitations confirm the need for further conceptual development of this complex construct.

A major conceptual challenge is to be able to capture the elusive, intangible qualities of hope that are grounded in the uniqueness of experience—qualities that may be difficult to describe in words (Jevne, 1991, 1993). When asked the question, *What does hope mean to you?*, people speak about hope from personal experience, recounting an image or a story that has special meaning. The intangible qualities of hope, embedded within personal experience, are lost within most conceptual frameworks that focus on the common (often abstracted) elements of hope, as opposed to the uniqueness of experience. Frameworks that mask personal experience seem to widen the gap between theory and clinical practice, giving rise to the question: "How could a model of hope be developed that captures the unique and dynamic nature of the human experience of hope?".

The purpose of this paper is to present a hope structure that is sensitive to the individual experience and meaning of hope within health and illness. This structure extends our theoretical understanding by focusing on the qualitative nature of hope within a common multidimensional framework. The identification of different components of the hope experience can enhance the clinical assessment of health and assist practitioners in the development of individualized, hope-enhancing strategies for patients.

2. Background

2.1. Hope, health and illness: an emerging research paradigm

Are we not duty bound to speak up as scientists, not about a new rocket or a new fuel or a new bomb or a new gas, but about this ancient but rediscovered truth, the validity of Hope in human development (Menninger, 1959, p. 491).

Forty years have passed since Karl Menninger (1959) challenged the medical community to consider an essential yet often neglected component of clinical practice, the concept of hope. Since Menninger’s landmark presidential address, health care practitioners have increasingly acknowledged the importance of hope in their work (Good et al., 1990; Miller, 1991; Perakyla, 1991; Byrne et al., 1994; Kodish and Post, 1995). Reciprocally, patients have identified hope as a valued life-promoting force, which may be strengthened through their relationships with caregivers (Miller, 1989; Herth, 1990; Jevne, 1991, 1993; Wong-Wylie and Jevne, 1997).

Coupled with this growing clinical interest, a burgeoning body of hope research is emerging within the health care field. Early studies frequently focused on hopelessness, as opposed to hope, particularly within psychiatric populations (Farran et al., 1995). More recently, researchers have broadened their visual field to explore the construct of hope across diverse illness contexts including the chronically ill (Foote et al., 1990; Raleigh, 1992; Beckerman and Northrop, 1996); the medically/critically ill (Miller, 1989, 1991; Perakyla, 1991); patients with life-threatening illnesses such as cancer (Stoner and Kempfmer, 1985; Herth, 1989; Owen, 1989), brain tumours (Salander et al., 1996) and HIV/AIDS (Hall, 1994; Wong-Wylie and Jevne, 1997) and the terminally ill (Hall, 1990; Herth, 1990). These studies have varied in focus, enhancing our understanding theoretically, through further conceptual development (Hinds and Martin, 1988; Owen, 1989; Ersek, 1992; Snyder, 1994; Morse and Dobnerank, 1995); methodologically, primarily through instrument development (Stoner and Kempfmer, 1985; Miller and Powers, 1988; Nowotny, 1989; Herth, 1991, 1992; Raleigh and Boehm, 1994; Snyder, 1995) and clinically, through the development of assessment frameworks (Nowotny, 1991; Farran et al., 1992; Penrod and Morse, 1997), exploration of the patient’s experience of hope (Hinds, 1984; Hall, 1990; Salander et al., 1996) and identification of hope-enhancing strategies (Herth, 1990, 1993; Jevne, 1993; Hall, 1994; Spencer et al., 1997).

To further delineate its therapeutic value in illness, hope has been linked to other positive health indicators, such as quality of life (Rustoen, 1995), spirituality (Carson et al., 1988; Haase et al., 1992; Mickley et al., 1992), coping (Raleigh, 1992), self-esteem (Foote et al., 1990) and mental health (Nunn, 1996). In contrast, few studies have focused on the experience of hope within healthy populations (Averill et al., 1990; Brackney and Westman, 1992), an identified need in the literature (Kylmä and Vehviläinen-Julkunen, 1997).

Despite these empirical advances, hope remains an elusive construct. Hope has both a universal and individual dimension. Although each person experiences hope as a part of being human, the nature of this experience is highly individualized. Adverse events, including threats to personal health, may influence a person’s hope experience (Jevne, 1993; Yates, 1993; Nekolaichuk and Bruera, 1998). A major conceptual challenge is to be able to capture the uniqueness of this personal experience, which provided a focal point for this research study.

2.2. A technique for structuring meaning

To identify a structure for hope based on personal meaning, a research tool was developed that integrated
Osgood’s semantic differential technique (Osgood and Suci, 1955; Osgood et al., 1957). Osgood and his associates developed the semantic differential for quantifying connotative meaning. *Connotative meaning* refers to the personal or subjective response that is evoked in individuals who encounter a stimulus (e.g. event, word, story, image). This subjective response differs from *denotative meaning*, which is the referent or universal meaning assigned to words. Connotative meaning emphasizes the uniqueness, while denotative meaning reflects the commonality, of experience.

Under the semantic differential, concepts related to the domain of interest are rated against continua of adjective pairs, that are polar opposites. Each adjective pair forms a scale that provides a set of alternative responses, ranging along a continuum from one extreme of the adjective pair to the other. The quality and intensity of meaning that the individual places on the concept can be determined by the direction and distance of these responses for a set of scales.

In the original factor analysis of meaning, Osgood et al. (1957) found that there were three common factors underlying the connotative meaning of most concepts: *evaluation, potency and activity*. The *evaluative factor* is a form of assessment or evaluation, that may be characterized by an adjective pair scale such as good–bad. The *potency factor* represents the relative strength or roughness of a concept. It may be represented by an adjective pair scale such as strong–weak. The *activity factor* is an indication of the degree of movement of a concept, represented by a scale such as active–passive. According to Osgood et al., the three dimensions comprise the major portion of the variation in connotative meaning that exists among most concepts.

Some parallels can be drawn between the three common factors associated with the semantic differential, as a measure of general connotative meaning, and the study of hope. Most hope researchers have assumed that people positively value hope. The *evaluative factor* of the semantic differential may help identify potential differences in the value of hope amongst individuals. To date, this issue has not been adequately addressed. Both the *potency factor* and the *activity factor* of the semantic differential may be related to the concept of energy, which has emerged as a common theme linking different elements of hope (Owen, 1989). From a hope perspective, the *potency factor* may represent the intensity of energy, while the *activity factor* may represent the movement of energy. The *activity factor*, itself, is similar to the action-oriented nature of hope, which Dufault and Martocchio (1985) isolated as a behavioral dimension within their hope model.

In contrast to its common usage as an instrument of exploration. In the exploratory mode, the semantic differential can be used to structure domains with unknown factorial composition, similar to Osgood’s (Osgood et al., 1957) original factor analysis of meaning. Bipolar adjective pair scales with unknown factorial composition that are highly relevant to a particular construct may be combined with Osgood’s standard bipolar adjective pair scales for evaluation, potency and activity. These combined scales are then used to measure concepts relevant to the domain of interest, such as children’s attitudes toward school (Yamamoto et al., 1969) or teacher’s perceptions of the value of curriculum objectives (Maguire, 1968). In the exploratory mode, the semantic differential offers an innovative approach for structuring constructs that are grounded in personal experience.

In this study, the semantic differential was used as an exploratory tool for structuring the domain of hope. Bipolar adjective pairs with unknown factorial composition, relevant to the hope domain, were combined with adjective pairs representing the Osgood et al. (1957) evaluation, potency and activity factors. The Dufault and Martocchio (1985) hope model was used as an initial framework for the content domain. Within this model, hope consists of two spheres, generalized and particularized hope, which share six common dimensions: affective, cognitive, behavioral, affiliative, temporal and contextual. Dufault and Martocchio’s multidimensional model challenges contrasting viewpoints that emphasize unidimensional (Stotland, 1969) and linear frameworks (McGee, 1984). However, its derivation from small samples of elderly cancer patients (n = 35) (Dufault, 1981) and terminally ill patients (n = 47) (Martocchio, 1982) limits its generalizability. To enhance its usefulness, further validation of this model is warranted, a need supported in the literature (Herth, 1990).

### 3. Methods

#### 3.1. Research tool development

Fifty bipolar adjective pairs, relevant to and representative of the domain of hope, were selected or created. Nine pairs represented the three factors of evaluation, potency and activity, from the Osgood et al. (1957) original factor analysis of meaning; sixteen pairs represented the six dimensions of the Dufault and Martocchio (1985) hope model and the remaining 25 pairs were related to the domain of hope, but remained unclassified. These unclassified pairs were generated from a number of sources, including participants’ transcripts from a qualitative study on hope in chronic illness (Nekolaichuk, 1990), a review of the
hope literature (Nekolaichuk, 1992) and related semantic differential studies. Following Osgood et al., each adjective pair formed a 7-point scale. Although Osgood originally referred to each bipolar adjective pair as a scale, for the purposes of this paper, each adjective pair will be considered an item. Thus, the original research tool was comprised of 50 bipolar adjective pairs or items, each rated along a 7-point continuum.

The 50 items, shown in Table 3 of Section 4, were used to rate six hope-related concepts developed specifically for this study. These concepts included three general concepts, hope, a hopeful person, a person without hope; two brief vignettes, Dave’s story (a story of maintaining hope) and Karen’s story (a story of losing hope) and a personal story of hope that each participant generated and then rated. The texts of Dave’s story and Karen’s story are shown in Tables 1 and 2, respectively.

Table 1
An example of a hope-related concept using vignettes: Dave’s story

<table>
<thead>
<tr>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dave was a successful businessman who really enjoyed his work. He had never been sick a day in his life and, at age 52, he was feeling very satisfied with his career. One day, Dave noticed an unusual lump in his neck. He went to see his family doctor who referred him to a surgeon. Dave was immediately scheduled for surgery and was found to have a serious cancer. He was told by his surgeon that he had a relatively poor chance of surviving. The surgeon told Dave to book an appointment to see him in a “couple of weeks”, so that they could talk about treatment options. Shortly after coming back from the operating room, Dave was out of his room making himself some tea. Dave’s nurse came looking for him and found him, stooped over the counter, stirring his tea. She said, “What are you doing here? You’re supposed to be in bed.” Dave quickly replied, “I want that ‘chemo’ [cancer medication]! You know what they do when they sew you up? They look at it and sew you up and send you back to die. I’m not ready to die! The surgeon told me to come back in two weeks. They’ll be bringing me back in a box in two weeks. I want that ‘chemo’ and I want it now!” With further medical consultation, Dave was started on chemotherapy. Throughout his cancer treatments, Dave continued to work, despite not always feeling well. Both he and his wife were unwilling to accept the fact that he might die. He trusted his physicians and was very pleased with the care he received. He often spoke of his desire to see his grandchildren grow up and marry. Five years after the initial diagnosis of cancer Dave is still alive.</td>
</tr>
</tbody>
</table>

Table 2
An example of a hope-related concept using vignettes: Karen’s story

<table>
<thead>
<tr>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karen, a 42 year old woman with breast cancer, was in a hospital for control of her symptoms. She was receiving treatment for her pain, as her cancer was spreading. Although she was quite weak and needed help to get out of bed, she had a cheerful attitude and liked to joke with the nurses. Karen was looking forward to getting back some of her strength, as she eventually wanted to go back home to be with her husband and 15 year old son. One day, Karen talked to her nurse about being in hospital. The reason I’m in here, in hospital, is that I believe there’s that, what would you say...rainbow out there. And if I take my medication, I do what I’m supposed to do... If I can go through the process of sitting, standing and walking...and get well, which I think I will, then fine. But if I’ve come in here with the idea that I’m going to die, then why am I here? I’ve come here with the idea of getting better which I intend to do. You just never give up that rainbow. If you give up that, then there’s no point. You may as well stay home and take your pills or not take your pills at all. The nursing staff were concerned that Karen was not aware of the seriousness of her illness and that she was dying. A nurse came in to talk to her about her ‘end-stage’ disease. Karen was very upset after the discussion with the nurse. She became quite depressed and did not feel like doing anything. She later told the nurse, “Do you realize that when you used the word, ‘end-stage’, you took away all of my reason for living?” Karen died two weeks later.</td>
</tr>
</tbody>
</table>

The 50 bipolar adjective pair items were combined with the six hope-related concepts to create a semantic differential research tool specifically for hope. Each hope-related concept was followed by a set of 50 bipolar adjective pairs with randomly assigned polarity. Respondents rated each of the six concepts against the 50 items, for a total of 300 judgments per person (i.e. 6 × 50). Extensive pilot testing occurred throughout the development of the adjective pair items and hope-related concepts, with the assistance of members from a hope research group, as well as individuals not directly associated with the study of hope. The research tool was integrated within a questionnaire format that included an introductory letter and demographic information.
3.2. Sample

The total sample of 550 people consisted of three primary subsamples: healthy adults \((n = 146)\), individuals with chronic and/or life-threatening illness experience \((n = 159)\) and nurses \((n = 206)\). Thirty-nine participants were not classified within these three subsamples, due to missing data or ineligible subsample criteria (e.g. employment status, health status).

The general criteria for sample selection included individuals who were 18 years of age or older, of either gender, able to read English and give consent and not cognitively impaired. In addition, specific criteria were identified for the each of the three subsamples. The health subsample included individuals who rated their own health status as good to excellent and said that they had no current or previous illness experience. The illness subsample included individuals who reported having experienced a chronic, serious or life-threatening illness, at some time in their lives, irrespective of their current health status. The nursing subsample consisted of practising nurses working either full-time or part-time in a clinical setting and student nurses.

A variety of methods were used to access the three subsamples. For the nursing subsample, a random sampling approach was predominantly used, in which practising nurses were randomly selected from a provincial licensing registry. A convenience sampling approach was used to obtain a representation of nurses from home care and oncology, as well as student nurses. A convenience sampling approach was also used to select participants for the healthy and illness subsamples. Intact groups formed the primary sample source. These included community service agencies, educational programs, health organizations and agencies, patient and/or family support groups, church groups and athletic groups. Prior to approaching individual participants, approval for this research (including ethical review) was obtained from the appropriate source.

The participants ranged in age from 18 to 84 years \((M = 42\) years, S.D. = 14). The majority of the participants were female \((85\%)\); married \((60\%)\); had received some form of postsecondary education \((87\%)\) and were working either part-time or full-time \((65\%)\).

3.3. Data collection and analysis

The questionnaires were distributed to participants either in-person or by mail. Of the 1635 questionnaires distributed, 556 were returned. Six of the returned questionnaires were deemed invalid due to improper completion or ineligible due to age. Thus, the total number of valid questionnaires was 550, representing a response rate of 33.6%.

A factor structure for the concept, hope, was identified, using factor analytic procedures \((n = 550)\). As part of the validation process, this structure was refined using the orthogonal Procrustes procedure \((Schonemann, 1966)\) and compared with Osgood’s framework. A further validation of this structure involved a comparison of factor means across the six hope-related concepts, based on the factor structure for hope \((n = 550)\).

4. Results and discussion

4.1. Factor structure for hope

To identify a factor structure for the concept, hope, correlations were calculated between pairs of the 50 bipolar adjective pair items \((n = 550)\). A principal components analysis of the correlations, using the roots greater than one criterion, resulted in the extraction of ten factors, accounting for approximately 58% of the total variance. Using the scree test, three of the ten extracted factors were considered significant, accounting for approximately 40% of the total variance. These findings are typical of semantic differential studies, including the Osgood et al. (1957) original work (i.e. the total variance accounted for by Osgood’s three primary factors was approximately 48%). The remaining factors did not contribute to a useful interpretation of the structure. The three factors were rotated both orthogonally, using a varimax procedure, and obliquely, using oblimin. Since there was no interpretive advantage to the oblique solution, the orthogonal results are presented here.

The rotated factor matrix appears in Table 3. Factor I is the dominant factor, accounting for approximately 50% of the common variance. Factors II and III are considerably smaller, accounting for approximately 28 and 22% of the common variance, respectively. The extraction of three primary factors, with a predominant first factor, resembles the distribution of factors in Osgood’s original factor analysis of meaning \((Osgood and Suci, 1955; Osgood et al., 1957)\). For ease of interpretation, the polarities of the items are ordered in the same direction. For consistency, the signs on the factor loadings for some of the items have thus been reversed. Given the large number of items with loadings on factor I, a factor loading of 0.50 or better was used for interpretation purposes. As there were fewer items that loaded on factors II and III, loadings of 0.40 or better were used for the interpretation.

4.1.1. Interpretation of factor I

Factor I focuses on the personal dimension of hope, in which a prominent evaluative component is complemented by a subjective hope component. Similar to the
Table 3
Orthogonally rotated factor loadings for the concept, hope (50 items, n = 550)

<table>
<thead>
<tr>
<th>Items¹</th>
<th>[Loadings]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>Meaningful—meaningless</td>
<td>0.70</td>
</tr>
<tr>
<td>Empowering—disabling</td>
<td>0.70</td>
</tr>
<tr>
<td>Valuable—worthless (E)²</td>
<td>0.69</td>
</tr>
<tr>
<td>Desirable—undesirable</td>
<td>0.67</td>
</tr>
<tr>
<td>Enhancing—inhibiting</td>
<td>0.66</td>
</tr>
<tr>
<td>Essential—frivolous</td>
<td>0.65</td>
</tr>
<tr>
<td>Bright—dull</td>
<td>0.63</td>
</tr>
<tr>
<td>Opening—closing³</td>
<td>0.62</td>
</tr>
<tr>
<td>Forward—backward³</td>
<td>0.59</td>
</tr>
<tr>
<td>Good—bad (E)³</td>
<td>0.59</td>
</tr>
<tr>
<td>Strong—weak (P)²</td>
<td>0.58</td>
</tr>
<tr>
<td>Caring—uncaring</td>
<td>0.56</td>
</tr>
<tr>
<td>Helpful—harmful</td>
<td>0.55</td>
</tr>
<tr>
<td>Possible—impossible</td>
<td>0.53</td>
</tr>
<tr>
<td>Active—passive (A)²</td>
<td>0.52</td>
</tr>
<tr>
<td>Winning—losing</td>
<td>0.52</td>
</tr>
<tr>
<td>Light—dark</td>
<td>0.51</td>
</tr>
<tr>
<td>Aware—unaware</td>
<td>0.49</td>
</tr>
<tr>
<td>Colorful—colorless</td>
<td>0.49</td>
</tr>
<tr>
<td>Positive—negative</td>
<td>0.48</td>
</tr>
<tr>
<td>Joining—separating³</td>
<td>0.47</td>
</tr>
<tr>
<td>Free—constrained³</td>
<td>0.44</td>
</tr>
<tr>
<td>Broad—narrow</td>
<td>0.44</td>
</tr>
<tr>
<td>Believable—unbelievable³</td>
<td>0.43</td>
</tr>
<tr>
<td>Probable—improbable</td>
<td>0.42</td>
</tr>
<tr>
<td>Daring—cautious³</td>
<td>0.41</td>
</tr>
<tr>
<td>Light—heavy (P)²</td>
<td>0.40</td>
</tr>
<tr>
<td>Optimistic—pessimistic</td>
<td>0.39</td>
</tr>
<tr>
<td>Leading—following³</td>
<td>0.34</td>
</tr>
<tr>
<td>Confronting—withdrawing³</td>
<td>0.32</td>
</tr>
<tr>
<td>Precise—imprecise</td>
<td>0.10</td>
</tr>
<tr>
<td>Near—far¹</td>
<td>0.21</td>
</tr>
<tr>
<td>Perfect—imperfect</td>
<td>0.21</td>
</tr>
<tr>
<td>Certain—uncertain³</td>
<td>0.33</td>
</tr>
<tr>
<td>Stable—unstable</td>
<td>0.37</td>
</tr>
<tr>
<td>Expected—unexpected</td>
<td>0.08</td>
</tr>
<tr>
<td>Fearless—fearful³</td>
<td>0.30</td>
</tr>
<tr>
<td>Fast—slow (A)²</td>
<td>−0.09</td>
</tr>
<tr>
<td>Confident—unsure</td>
<td>0.43</td>
</tr>
<tr>
<td>Patient—impatient³</td>
<td>0.30</td>
</tr>
<tr>
<td>Outward—inward³</td>
<td>0.00</td>
</tr>
<tr>
<td>Honest—dishonest (E)³</td>
<td>0.09</td>
</tr>
<tr>
<td>Trusting—mistrusting</td>
<td>0.21</td>
</tr>
<tr>
<td>Realistic—unrealistic³</td>
<td>0.23</td>
</tr>
<tr>
<td>Tender—tough</td>
<td>0.03</td>
</tr>
<tr>
<td>Happy—sad³</td>
<td>0.35</td>
</tr>
<tr>
<td>Connected—disconnected³</td>
<td>0.34</td>
</tr>
<tr>
<td>Warm—cold (A)³</td>
<td>0.37</td>
</tr>
<tr>
<td>Accepting—rejecting</td>
<td>0.12</td>
</tr>
<tr>
<td>Soft—hard (P)²</td>
<td>0.06</td>
</tr>
</tbody>
</table>

% of total variance | 19.8 | 11.1 | 8.6
% of common variance | 50.1 | 28.1 | 21.8

¹Some of the adjective pairs were randomly reversed in polarity for the Hope Research Study, but for convenience of comparison the signs have been changed to make them consistent.
²Adjective pair markers for the Osgood et al. (1957) three factors: E (evaluation), P (potency) and A (activity).
³Adjective pair markers for the Dufault and Martocchio (1985) model of hope.
Osgood and Suci (1955) and Osgood et al. (1957) findings, a substantial number of evaluative items loaded on this first factor: meaningful, empowering, valuable, desirable, enhancing, essential, good and helpful. All of these items had loadings above 0.5. Two of the items, valuable–worthless and good–bad, were markers for Osgood’s evaluative dimension, which further supports the evaluative nature of factor I. In contrast to Osgood’s findings, however, factor I is not purely evaluative, in that some items represented subjective elements of hope: bright, opening, forward, strong, caring, possible, active, winning and light/dark. Two of the items, strong–weak and active–passive, are also markers for Osgood’s potency and activity factors, respectively. This suggests that, in the context of hope, potency and activity may have a strong evaluative component.

To identify the items that best represent factor I, correlations amongst the 30 adjective pairs that loaded primarily on this first factor were compared. This comparison revealed a cluster of items with high intercorrelations, revolving around a core item, meaningful. Based on this comparison, eight items were selected to represent the essence of factor I: meaningful, bright, valuable, desirable, empowering, strong, caring and forward. The item, meaningful, had a correlation of at least 0.47 with each of the other seven items. These eight items may be characterized by the following themes: (a) meaning, represented by the core item meaningful; (b) vibrancy, represented by the items bright and strong; (c) engaging, represented by the items empowering and forward; (d) caring, represented by the item caring and (e) value, represented by the items valuable and desirable. Based on this interpretation, factor I was given the label personal spirit.

4.1.2. Interpretation of factor II

Factor II represents the situational dimension of hope. It is predominantly a predictability factor, which is reflected in the items that had the highest loadings: precise, near, perfect, certain, stable and expected. Underpinning the theme of predictability is a second prominent theme of boldness, represented by fearless, fast and confident. Eight items were selected to represent factor II, based on their high factor loadings, as well as a representation of both the predictability (five items) and boldness (three items) components of this factor: precise, near, certain, stable, expected, fearless, fast and confident. Integrating the themes of predictability and boldness, factor II was labelled risk.

Factor II bears some resemblance to the Osgood and Suci (1955) and Osgood et al. (1957) activity factor. The adjective pair items, fast–slow, active–passive and warm–cold, were used as markers for the activity factor. Only fast–slow loaded on factor II. The other two markers, active–passive and warm–cold, had the highest loadings on factors I and III, respectively. Thus, factor II is not purely an activity factor. Although activity may be a component of this second factor, it is in relationship to the themes of predictability and boldness.

4.1.3. Interpretation of factor III

Factor III focuses on the interpersonal dimension of hope. Factor III has a predominant credibility component, that is reflected in the items with the highest loadings on this factor ($r > 0.6$): honest, trusting and realistic. These three items correlated with one another above 0.50. Underlying credibility is a comfort component, represented by the items tender, happy, connected, warm and accepting. These eight items, honest, trusting, realistic, tender, happy, connected, warm and accepting, were selected to represent factor III, as they had the highest loadings on this factor. They represent the complementary themes of credibility and comfort, for which factor III was labelled authentic caring.

The Osgood and Suci (1955) and Osgood et al. (1957) potency factor is not involved in factor III. None of the three adjective pairs selected to represent the potency factor (light–heavy, strong–weak and soft–hard) loaded significantly on factor III. The first two markers had their highest loadings on factor I. Although soft–hard had the highest loading on factor III, its value was below $0.30$.

A summary of the key findings from the factor analysis of the concept, hope, appears in Fig. 1.

4.2. Factor structure refinement

Based on the factor interpretation, the initial factor structure for the concept, hope, was refined. The eight items chosen to represent each of the three factors were reanalyzed using the total sample of 550 (total items = 24). The principal components solution was rotated to fit the proposed structure using the orthogonal Procrustes procedure (Schonemann, 1966). The eight items, representing each of the three factors, selectively loaded on their respective factors. These loadings were greater than 0.40 on each of the three factors: for personal spirit, the loadings were above 0.60, whereas for risk and authentic caring the loadings were slightly lower for some of the items. The consistent loading of items on their respective factors lends further support to the refined factor structure for the concept, hope.

The refined factor structure for hope (24 items, $n = 550$) was compared with the Osgood and Suci (1955) and Osgood et al. (1957) original work. Of the 24 items, five items (honest, valuable, strong, fast and warm) were adjective pair markers for Osgood’s three factors of evaluation, potency and activity. If the refined structure for Hope were similar to Osgood’s
framework, then these five markers should load on their respective factors: the evaluative markers, honest and valuable, should load on the first factor (personal spirit); the potency marker, strong, should load on the second factor (risk) and the activity markers, fast and warm, should load on the third factor (authentic caring). These markers did not load on the three factors as predicted.

In addition to the Osgood and Suci (1955) and Osgood et al. (1957) framework, the refined factor structure for hope (24 items, \( n = 550 \)) was compared with the Dufault and Martocchio (1985) model of hope. Sixteen adjective pair markers, representing their six dimensions of hope, were included in the original pool of 50 variables. Of these 16 adjective pairs, only seven were used to define the factors of hope. In the refined factor structure, the pattern of loadings for these seven markers was diffuse. The six dimensions of hope, proposed by Dufault and Martocchio, were spread across personal spirit, risk and authentic caring.

There are some notable differences between the factor structure for hope and the Dufault and Martocchio (1985) hope model. The three factors of personal spirit, risk and authentic caring defined the connotative structure of Hope. In contrast, Dufault and Martocchio’s multidimensional model represented hope deriving from six underlying social and psychological components (affective, cognitive, behavioral, affiliative, temporal and contextual). As such, the present research looks at hope from the subjective perspective of how individuals give meaning to the concept. Dufault and Martocchio view hope from a more objective, denotative perspective. Their dimensions appear to be more or less equal components. In contrast, the subjective structure in the present study found three factors of differing importance. Of the three factors, personal spirit was predominant, representing hope as a holistic, interconnected configuration of different hope elements. Unlike Dufault and Martocchio’s conceptualization of hope, these elements could not be compartmentalized. Rather, they were configured within a single dimension of personal spirit (see Fig. 2).

Beyond the personal spirit factor, the risk and authentic caring factors bear some resemblance to the Dufault and Martocchio (1985) behavioral and affiliative dimensions. The boldness component of the risk factor is activity-oriented, which is similar to the behavioral hope dimension. However, it is complemented with a substantial predictability component that is absent from Dufault and Martocchio’s framework. The authentic caring factor resembles the affiliative

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Fig. 1. Summary of the key findings from the factor analysis of the concept, hope.

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Fig. 2. A holistic configuration of the personal spirit factor for the concept, hope.

**Note**: Solid lines represent correlations above 0.45 for the item, meaningful. Broken lines represent correlations above 0.45 for all other items, other than the item, meaningful.
hope dimension, as they both place a strong emphasis on relationships. However, there is a substantial credibility component within the authentic caring factor which is absent from Dufault and Martocchio’s model.

Table 4
Dimension means, standard deviations and distance from hope for the six hope-related concepts

<table>
<thead>
<tr>
<th>Concept</th>
<th>M</th>
<th>S.D.</th>
<th>M</th>
<th>S.D.</th>
<th>M</th>
<th>S.D.</th>
<th>Distance from hope (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hope</td>
<td>2.29</td>
<td>0.75</td>
<td>0.97</td>
<td>0.97</td>
<td>1.87</td>
<td>0.82</td>
<td>0.00</td>
</tr>
<tr>
<td>Hopeful person</td>
<td>2.19</td>
<td>0.74</td>
<td>1.29</td>
<td>0.84</td>
<td>1.97</td>
<td>0.75</td>
<td>0.35</td>
</tr>
<tr>
<td>Dave’s story (story of hope)</td>
<td>2.02</td>
<td>0.92</td>
<td>1.17</td>
<td>0.97</td>
<td>1.32</td>
<td>1.02</td>
<td>0.64</td>
</tr>
<tr>
<td>Personal story of hope</td>
<td>1.02</td>
<td>1.70</td>
<td>0.06</td>
<td>1.38</td>
<td>0.55</td>
<td>1.50</td>
<td>2.04</td>
</tr>
<tr>
<td>Karen’s story (losing hope)</td>
<td>−0.96</td>
<td>1.20</td>
<td>−0.58</td>
<td>0.92</td>
<td>−0.61</td>
<td>1.01</td>
<td>4.37</td>
</tr>
<tr>
<td>Person without hope</td>
<td>−1.12</td>
<td>0.93</td>
<td>−1.13</td>
<td>0.85</td>
<td>−1.29</td>
<td>0.89</td>
<td>5.10</td>
</tr>
</tbody>
</table>

Dimension means above zero represent the positive end of the continuum and dimension means below zero represent the negative end of the continuum.

Fig. 3. A comparison of dimension means for the six hope-related concepts.
The importance of credibility within a caring relationship is a substantial finding of this study.

4.3. Comparison of factor means

4.3.1. Comparison across concepts

To further validate the structure of hope, the dimension means for the six hope-related concepts (hope, a hopeful person, a person without hope, Dave’s story, Karen’s story and a personal story of hope) were compared, using the entire sample of 550 people. As noted previously, eight bipolar items represented each of the three dimensions. For the respective hope-related concepts, an average dimension score was calculated across the eight items and 550 people. The dimension means for each of the six concepts appear in Table 4.

A three-dimensional mapping of the hope-related concepts is represented in a plot of dimension means (see Fig. 3). The origin (0, 0, 0) is the midpoint for the dimensions and represents the neutral points of the three axes. For each concept, the base of the projection represents the means for the personal spirit and risk factors. The length of the projection, from the concept to the base represents the mean for the authentic caring factor, with a projection above the horizontal plane indicating a rating toward the positive end of the axis and a projection below the plane indicating a rating toward the negative end of the axis.

As shown in Fig. 3, three of the concepts occupy similar positions in the three-dimensional semantic space, hope, a hopeful person and Dave’s story. These three concepts are located in close proximity to one another, above the upper right quadrant of the horizontal plane, in a region that represents the positive end of the continuum for each of the three dimensions. The close proximity of these three concepts in semantic space suggests that they have similar meaning and provide further validity evidence for the hope structure. Two of the concepts, a person without hope and...
Karen’s story, are located below the lower left quadrant of the horizontal plane, in close proximity to each other, in the region defined by the negative end for each of the three dimensions, illustrating their conceptual similarity. In comparison with hope, their location in three-dimensional space is almost as far away from hope as is possible. The concept, a personal story of hope, is located close to the origin, slightly above the horizontal plane and to the right of the vertical axis. In retrospect, the close proximity of this concept to the origin is not surprising, as this concept represents both the positive and negative ends of the continuum. Some of the participants rated their personal stories of hope positively, while others rated their stories negatively. When combined, the means of these ratings were close to a neutral position, the origin.

4.3.2. Comparison across individuals

To illustrate the sensitivity of this approach to individual variability, the dimension scores for four individual personal stories were plotted in relationship to the dimension means for the concept, hope (see Fig. 4). As shown in Fig. 4, stories A and B are located above the horizontal plane. Story A is located close to hope, in the upper right quadrant representing the positive end of all three factors. Story B is located further away from hope in the quadrant representing the positive end of personal spirit and authentic caring and the negative end of risk. Stories C and D are located furthest away from hope, below the horizontal plane in the lower left quadrant. This space represents the negative end of the continuum for all three dimensions. The four stories appear in Table 5. As shown in Table 5, all four participants described experiences revolving around some form of adversity. The personal meaning of hope ascribed to these experiences, however, varied considerably amongst the four participants, as illustrated in Fig. 4.

4.3.3. Comparison across groups

To illustrate the sensitivity of this approach to group variability, ratings of personal stories were compared across the health, illness and nursing subsamples. Dimension means for each of these three groups were calculated and then plotted graphically (see Fig. 5). As shown in Fig. 5, the health and illness subsamples are located close together, in the upper right quadrant above the horizontal plane, representing the positive polarity for all three factors. The nursing subsample is located closer to the origin, in the lower right quadrant above the horizontal plane. These findings suggest that participants in the health and illness subsamples tended to rate their stories more positively along the three dimensions than nurses. When compared with the nursing subsample, the illness subsample ratings were significantly more positive on the personal spirit and risk factors (effect size > 0.6), while the health subsample ratings were significantly more positive on the authentic caring factor (effect size > 0.6).

5. Synthesis

The model of hope described in this paper portrays hope as an holistic experience, consisting of three primary dimensions: personal, situational and interpersonal. The personal dimension, personal spirit, is a
dominant component, revolving around a core theme of meaning. The situational dimension, risk, integrates the complementary themes of predictability and boldness. The interpersonal dimension, authentic caring, acknowledges the critical component of credibility as part of a comfort factor.

This three-dimensional model differs from the Osgood and Suci (1955) and Osgood et al. (1957) three-factor framework for connotative meaning (i.e. evaluation, potency and activity). Although there appears to be a substantial evaluative component associated with the hope model, it is counterbalanced by the presence of a number of subjective hope components, characterized by a core theme of meaning. Osgood et al.’s factors of potency and activity are not as clearly delineated within the hope framework and appear to have a strong evaluative component.

Three distinctive features distinguish this model from existing hope frameworks. First, it captures the qualitative experience of hope, within a holistic, multidimensional quantitative framework. Second, it portrays the experience of hope as a location in three-dimensional space (defined by personal spirit, risk and authentic caring), as opposed to a point along a single continuum ranging from hopefulness to hopelessness. Third, it acknowledges the unique, dynamic nature of personal experience, by differentiating across concepts and people. These distinctive features contribute to our understanding of the experience of hope at the theoretical, clinical and methodological levels.

Theoretically, the representation of hope as a holistic, multidimensional experience challenges other models that have attempted to compartmentalize the experience. The key themes of meaning (personal dimension), predictability and boldness (situational dimension), and credibility and comfort (interpersonal dimension) raise important questions regarding the nature of hope within the context of health and illness.

Fig. 5. A comparison of dimension means for a personal story of hope based on the health, illness and nursing subsamples.
for further research: What is the nature of the relationship between hope and meaning? How might the uncertainty of the illness experience influence hope? What is the influence of credible, caring relationships on the personal experience of hope?

Clinically, the portrayal of hope as a location in space defies its more common portrayal along a single dimension. The representation of hope along a single dimension dichotomizes experiences, in which people locate themselves along a continuum, for example, ranging from hopefulness to hopelessness. Most conceptual frameworks tend to compare hope with an opposite, such as hopelessness (Stotland, 1969; McGee, 1984), despair (Marcel, 1962) or fear (Day, 1969). If we were to view the experience of hope as a point (location) in three-dimensional space, then a person can be thought of as moving in a more complex way in one, two or even three dimensions and the implications for the clinician may be quite different.

The participants’ personal stories of hope, described in this paper, illustrate this uniquely experienced, multidimensional movement, raising important questions within the clinical setting: How is it that some people are able to maintain a sense of personal spirit, willingness to risk and caring relationships in the face of adversity, while others are unable to do so? Most clinicians can describe cases of individuals who were able to maintain a sense of hope in spite of traumatic experiences, while others became paralyzed by seemingly less threatening events. As an example from the cancer field, some patients are able to maintain a sense of personal spirit in the face of a poor prognosis, while others with much better chances of survival become blocked by fear and uncertainty. Similarly, people who survived traumatic life events, such as the atrocities of war or being prisoners in concentration camps, cite a strong will to live as a primary motivating force, while others in the face of the same adversity perished. What accounts for these differences?

Complex movements along different dimensions of the hope experience raise further questions for reflection. Is it possible to maintain a sense of personal spirit in the absence of authentic caring relationships? Is the presence of caring relationships sufficient to maintain a person’s personal spirit? How does the presence (or absence) of personal spirit and authentic caring influence a person’s willingness to risk?

These clinical quandaries generate key questions for further research. How are the three dimensions of personal spirit, risk and authentic caring interconnected? Does the presence of one dimension of the hope experience, such as personal spirit, necessitate the presence of the other two dimensions? How do people move along the complex dimensions of the hope experience? How might our understanding of this complex experience influence the selection of therapeutic interventions?

Methodologically, the use of the semantic differential in the exploratory mode creates many possibilities for exploring the domains of elusive, multidimensional constructs such as hope. By portraying people’s understanding of concepts according to several relevant dimensions, the semantic differential offers a compelling advantage to methods of measurement that aim at locating people along a single dimension. It acknowledges the variations that may exist both across people and across concepts. This sensitivity to individual and group variability within a multidimensional framework provides a novel approach for structuring the meaning of hope, in contrast to other hope measurement scales that have focused on measuring the amount of hope as distinct from the nature of hope.

The purpose of this paper was to describe a model that could capture the individual variation of hope within a common framework. The findings presented in this paper suggest that the model’s three dimensions can be used to portray the complexity of meaning in a way that is sensitive to the underlying subjective structure of hope. The solid theoretical underpinnings and broad utility of this model, based on the semantic differential, create limitless possibilities for its use in the applied research and clinical settings.

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