

## Brief Methodological Report

# Development and Preliminary Testing of the Quality of Spiritual Care Scale

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## Abstract

**Context.** The provision of spiritual care is considered a key element of hospice and palliative care, but there is a paucity of empirically developed quality-of-care measures in this domain.

**Objectives.** To describe the development and reliability and validity of the Quality of Spiritual Care (QSC) scale in family caregivers.

**Methods.** We conducted analyses of interviews conducted that included the QSC scale with family members of residents who died in long-term care settings taken after the resident had died. To determine reliability and validity of the QSC scale, we examined internal consistency, concurrent construct validity, and factor analysis with promax rotation.

**Results.** Of 165 family caregivers of decedents who were asked whether they received spiritual care, 91 (55%) responded yes, and 89 of these (98%) completed at least 80% of the QSC items. Two items (i.e., satisfaction with and value of spiritual care) were perfectly correlated so the latter item was dropped in scale development. Factor analysis identified two factors, *personal spiritual enrichment* (mean pattern matrix loading = 0.77) and *relationship enrichment* (mean pattern matrix loading = 0.72). Reliability analysis yielded a Cronbach's alpha of 0.87, and item-total correlations for all items were in excess of 0.55. Preliminary validity of the QSC was supported by significant and expected correlations in both direction and magnitude with items from validated instruments conceptually associated with the quality of spiritual care.

**Conclusion.** Preliminary testing of the QSC scale suggests that it is a valid and reliable outcome measure of the quality of spiritual care at the end of life. *J Pain Symptom Manage* 2014;47:793–800. © 2014 U.S. Cancer Pain Relief Committee. Published by Elsevier Inc. All rights reserved.

## Key Words

Quality of care, spiritual care, measurement, end of life

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## Introduction

Attention to the spiritual needs of patients and caregivers at the end of life, and the provision of high-quality spiritual care, have been advocated by the Institute of Medicine, the National Hospice and Palliative Care Organization, and the Joint Commission on Accreditation of Healthcare Organizations.<sup>1-3</sup> Although seriously ill patients and families want their religious and spiritual values, beliefs, and practices included in their care decisions and processes, this goal is infrequently achieved.<sup>4</sup> Even when spiritual care is included in overall care planning, there is limited evidence demonstrating the impact of spiritual care on health care outcomes, such as satisfaction with care. For example, family members of decedents who received spiritual care in long-term care settings rated their overall care in the last month of life more highly compared with decedents who did not receive spiritual care.<sup>5</sup> Unfortunately, this is one of only a handful of studies that document the contribution of spiritual care to the overall quality of health care.<sup>6,7</sup> Without an evidence base that can demonstrate value, spiritual care runs the risk of being marginalized in health care settings.<sup>6</sup>

The acknowledged limitations around spiritual care and quality are significant, especially in light of emerging consensus practice guidelines such as those of the National Quality Forum, which include the provision of spiritual care services as a preferred practice of quality palliative care.<sup>8</sup> In addition to the National Quality Forum, the National Consensus Project for Quality Palliative Care released clinical practice guidelines that include an assessment and response to spiritual, religious, and existential care needs that is based upon the best available evidence.<sup>9</sup>

Although there are multiple instruments that can be used to assess spiritual needs,<sup>10</sup> these differ from a quality measure intended to assess care for a population of patients.<sup>11</sup> In a recent review of a proposed set of quality measures for hospice and palliative care, investigators concluded that the spiritual care domain was among the least developed.<sup>11</sup> In consequence, this study describes the development and initial testing of a measure designed to assess the quality of spiritual care provided

to family caregivers of dying patients at the end of life.

## Methods

### *Item and Instrument Development*

The Quality of Spiritual Care (QSC) measure was developed to assess the spiritual care received by dying patients and their family caregivers. Our understanding of spiritual care and stimulus material for the measure were developed through a study described elsewhere.<sup>12,13</sup> In brief, we previously conducted semistructured interviews with seriously ill patients and family caregivers, using Donabedian's quality of care framework,<sup>14</sup> to describe the structure and process of spiritual care and its association with specific outcomes. Recipients of spiritual care reported that the outcome of satisfaction with care was greater when spiritual care included helping with understanding of their illness state and helping to cope with their illness.<sup>13</sup>

On the basis of these results, 11 items were developed that encompassed three process domains (i.e., help with coping, facilitate relationships, promote understanding) and the outcome domains of the perceived value of and satisfaction with spiritual care received. The scale is prefaced by: "Looking back over the last month of [DECEDENT'S] life, please tell me if you strongly disagree, disagree, agree, or strongly agree with each statement about spiritual care." Each item is a statement about an aspect of spiritual care accompanied by a 4-point Likert response with a scoring range from 11 to 44.

### *Identification and Recruitment of Study*

#### *Subjects*

Family caregivers were identified and recruited as part of a study to assess measures that gauge the quality of care and dying at the end of life in long-term care.<sup>15,16</sup> Briefly, a stratified sample of 169 long-term care settings—66 nursing homes and 103 residential care/assisted living sites—participating in the Collaborative Studies of Long-Term Care were recruited from four states.<sup>17</sup> Participating sites identified up to three eligible decedents,

defined as those who were admitted to the setting at least 30 days before death, had lived there at least 15 of the last 30 days of life, and died there or within 3 days of transfer. In addition, eligible decedents had a family caregiver, defined as the person most involved in the resident's care during the last month of life, who visited at least once during this time.

Once eligibility was determined, a condolence letter and consent form introducing the study were mailed approximately 4 weeks after the date of death to the deceased resident's identified family member. Interviewers followed up at least 6 weeks after the date of death to obtain verbal consent and conduct a telephone interview with family members; interviews lasted approximately 45 minutes. Because of the time taken for scale development, the QSC was added to interviews approximately midway through the study.

### Measures

In addition to demographic information and the QSC, family caregivers reported on items conceptually associated with the quality of spiritual care they received. For the present analysis, the following items were excerpted from these validated measures:

*Family Assessment of Treatment at the End-of-Life—Short Version.* The Family Assessment of Treatment at the End-of-life—Short Version is used to assess family perceptions of care for decedents receiving inpatient or ambulatory care at the end of life.<sup>18,19</sup> Our analyses used the sum of two items from the emotional and spiritual support scale ( $\alpha = 0.77$ ): "How much did the doctors and other staff who took care of [Resident] provide you and [Resident] the kind of spiritual support that you and [he/she] would have liked?" and "How much did the doctors and other staff who took care of [Resident] provide you and [Resident] the kind of emotional support that you and [he/she] would have liked?"

*Family Perceptions of Care Scale (FPCS).* The FPCS is used in interviews with family after the patient's death to assess family perceptions of care for long-term care decedents.<sup>15,16,20,21</sup> Our analyses used one item from the family support scale ( $\alpha = 0.85$ ) of the FPCS: Chaplaincy services were on hand.

*Toolkit of Instruments to Measure End-of-Life Care (TIME) — After Death Bereaved Family Member Interview (Nursing Home version).* We used the following items from the TIME<sup>10,22</sup>: 1) In [Resident's] last week, did someone from [Facility] talk with you about your religious or spiritual beliefs? 2) In [Resident's] last week, did a doctor, nurse, or other professional staff taking care of [Resident] talk about how you might feel after [Resident's] death? 3) In [Resident's] last week, did a doctor, nurse, or other professional staff taking care of [Resident] suggest someone you could turn to for help if you were feeling stressed?

All study materials and procedures were reviewed and approved by the Institutional Review Board of the University of North Carolina at Chapel Hill.

### Statistical Analysis

We used descriptive statistics to characterize the study sample and summarize scores for the overall QSC and its subscales. To determine reliability, we calculated Cronbach's alpha for the QSC and also calculated an alpha value, as well as the individual item's correlation with the total QSC, after each individual item was deleted. This approach was used to identify items under consideration for deletion from the QSC.

Factors were identified by the use of a principal component analysis with a promax (oblique) rotation. We used an eigenvalues greater than 1 criterion to select a two-factor structure for the QSC. To conduct validity testing, we calculated Pearson correlations between the QSC and items conceptually associated with the quality of spiritual care. All analyses were performed using SPSS, v. 18 (SPSS Inc., Chicago, IL).

### Results

Three hundred thirty-one eligible caregivers were recruited for participation in the Collaborative Studies of Long-Term Care study; 264 (80%) consented to study participation and completed a post-death telephone interview. Of the 264 who completed the interview, 165 family caregivers were asked whether they had received spiritual care from another person during the last month of the decedent's life; 91 (55%) acknowledged receiving spiritual

care and were asked to complete the QSC. Table 1 describes characteristics of the caregiver respondents, decedents, and long-term care settings. Most respondents were children of decedents (76%); however, some were other relatives (10%), spouses (7%), or nonrelatives (7%). Family respondents were predominantly white (92%) and female (85%), with a mean age of 59.6 years.

Table 2 presents descriptive statistics for the QSC, item-total correlation, and alphas with the respective item deleted from the total scale. One item (“Overall, I valued the

spiritual care that I received during [resident’s] last month of life”) was ultimately removed from the scale because its responses were identical to those for a similar item (i.e., satisfaction with spiritual care). The resulting 10-item QSC produced a coefficient alpha of 0.87, indicating high internal consistency. For the present sample, the mean 10-item QSC score was 33.1 (SD 5.5) and scores ranged from 20 to 40 (67% of range used). Fourteen percent of respondents had a maximum QSC score, and 98% of respondents completed greater than 80% of the items.

Table 3 presents the results of the factor analysis, with individual items and item loadings. Two factors were identified through inspection, which we name a *personal spiritual enrichment* factor (mean pattern matrix loading = 0.77) and a *relationship enrichment* factor (mean pattern matrix loading = 0.72). The first factor included items related to facilitating peace, life value, and meaning and also included the overall satisfaction with spiritual care item. The second factor included items related to promoting hope, control, coping, help in relationships, and peace with God. The two factors had a correlation of 0.57 and accounted for 61% of the total variance.

Table 4 shows a matrix of correlations between the QSC and constructs conceptually related to the quality of spiritual care. The QSC had expected correlations in both direction and magnitude with all five items tested, and reached statistical significance for four of the five. For example, significant *P*-values for the correlations of the QSC ranged from 0.03 for the FPCS item regarding chaplaincy services being on hand, to 0.001 for the TIME item related to staff talking with caregivers about how they might feel after the death.

## Discussion

This study describes the development and preliminary testing of an instrument designed to measure the quality of spiritual care at the end of life. To our knowledge, this is the first instrument that specifically focuses on this domain.<sup>10,23,24</sup> There is limited understanding as to how spiritual care quality is operationalized, in large part because of the lack of a conceptual framework; such a framework would

Table 1  
Characteristics of Family Caregiver Respondents, Residents, and Sites

Characteristic	N (%) or Mean (SD)
Family caregiver respondent ( <i>n</i> = 91)	
Female	77 (85)
Age	59.6 (11.0)
Relationship to resident	
Spouse	6 (7)
Daughter/daughter-in-law	58 (63)
Son/son-in-law	12 (13)
Other relative	9 (10)
Nonrelative	6 (7)
Married	59 (65)
Minority race	7 (8)
Hispanic	1 (1)
Education	
High school diploma or less	19 (21)
Some college	29 (32)
Bachelor’s or higher degree	43 (47)
Religion	
Protestant	59 (65)
Catholic	20 (22)
Jewish	3 (3)
Other	5 (6)
No religion	4 (4)
Resident ( <i>n</i> = 91)	
Female	63 (69)
Age	86.2 (7.9)
Cognitive status	
Intact	29 (32)
Mild/moderate dementia	27 (30)
Severe dementia	35 (38)
Sites ( <i>n</i> = 74)	
Type <sup>a</sup>	
Residential care/assisted living (RC/AL)	
Small	7 (9)
Traditional	17 (23)
New model	8 (11)
Nursing Home	42 (57)
For profit	44 (60)
Affiliated with a religious organization	15 (20)
Part of a chain	39 (53)
Bed size RC/AL sites ( <i>n</i> = 32)	62 (44)
Bed size nursing home sites ( <i>n</i> = 42)	115 (76)

<sup>a</sup>From Zimmerman et al.<sup>17</sup>

Table 2  
Descriptive Statistics and Reliability Analysis for the Quality of Spiritual Care Scale

Item	Disagree/Strongly Disagree, %	Agree, %	Strongly Agree, %	Item-Total Correlation	Alpha if Item Deleted
1. The spiritual care I received helped me in my relationship with [resident].	32	32	36	0.60	0.86
2. I gained hope through the spiritual care that I received.	28	36	36	0.60	0.86
3. Spiritual care allowed me to have a greater sense of control of my life.	18	38	44	0.65	0.85
4. Spiritual care helped me to be at peace with God or Higher Being.	18	33	49	0.57	0.86
5. The spiritual care I received helped me in relationships with loved ones other than [resident].	12	36	52	0.66	0.85
6. Spiritual care helped me to cope as [resident] approached death.	14	22	64	0.60	0.86
7. Through spiritual care I became aware of the meaning of my life.	49	20	31	0.50	0.87
8. Spiritual care helped me to be at peace with [resident's] death.	7	25	68	0.64	0.86
9. Spiritual care helped me to recognize the value of my life.	10	25	65	0.61	0.86
10. Overall, I was satisfied with the spiritual care that I received during [resident's] last month of life.	1	31	68	0.68	0.86
11. Overall, I valued the spiritual care that I received during [resident's] last month of life.	1	31	68	0.68	— <sup>a</sup>

<sup>a</sup>Item deleted from scale because responses were identical to responses on item 10.

inform how spiritual care is delivered within health care settings and its contribution to the quality of care and quality of dying.<sup>25</sup> For example, two systematic reviews that conceptualized spirituality at the end of life identified constructs such as beliefs and practices, spiritual well-being, and contextual factors (e.g., relationships, death attitudes), but all were independent of the quality of care and health care contexts.<sup>26,27</sup> In contrast, the use of a health services framework, as was used in this study, provides an empirically grounded

approach to the development of a spiritual care measure.<sup>25</sup>

Several existing end-of-life instruments are primarily assessments of individual spiritual needs, but these instruments do not consider how addressing these needs contributes to quality of care.<sup>26,27</sup> For example, the TIME, which was used in this study for validation items, is widely recognized and includes a series of dichotomous questions that are an audit of family members' emotional and spiritual needs.<sup>22</sup> Multiple individual level measures of

Table 3  
Factor Analysis for the Quality of Spiritual Care Scale

Item	Factor	
	Personal Spiritual Enrichment	Relationship Enrichment
Overall, I was satisfied with the spiritual care that I received during [resident's] last month of life.	0.986	
Spiritual care helped me to be at peace with [resident's] death.	0.738	
Spiritual care helped me to recognize the value of my life.	0.720	
Through spiritual care I became aware of the meaning of my life.	0.422	
I gained hope through the spiritual care that I received.		0.856
The spiritual care I received helped me in my relationship with [resident].		0.789
The spiritual care I received helped me in relationships with loved ones other than [resident].		0.721
Spiritual care helped me to be at peace with God or Higher Being.		0.694
Spiritual care allowed me to have a greater sense of control of my life.		0.690
Spiritual care helped me to cope as [resident] approached death.		0.598

Table 4  
Correlation of the Quality of Spiritual Care Scale with Conceptually Related Items and Family and Setting Characteristics

Item	r/eta	QSC Mean (SD)	P-value
FATE-S ( <i>n</i> = 32): Provision of spiritual/emotional support	0.39		0.031
Low		33.3 (5.2)	
High		38.3 (2.0)	
FPCS ( <i>n</i> = 39): Chaplaincy services were at hand for family [at the site]	0.34		0.033
Somewhat agree or less		32.4 (6.9)	
Agree/strongly agree		35.2 (4.7)	
TIME: Staff spoke with caregiver about his/her religious/spiritual beliefs in last week.	0.17		0.11
No		32.6 (5.6)	
Yes		34.8 (4.6)	
TIME: staff talked to caregiver about how he/she might feel after resident's death.	0.33		0.001
No		31.6 (5.7)	
Yes		35.4 (4.3)	
TIME: staff suggestion of someone caregiver could turn to for help if he/she were feeling stressed	0.25		0.017
No		31.7 (6.0)	
Yes		34.4 (4.6)	
Family caregiver characteristic			
Religion			0.05
Protestant or Catholic		33.5 (5.5)	
Jewish/other/none		30.0 (5.0)	
Gender			0.19
Female		33.4 (5.5)	
Male		31.2 (5.7)	
Setting characteristics			
Affiliated with religious organization			0.13
No		32.6 (5.6)	
Yes		34.9 (4.8)	
Facility size			0.12
Small (<16 beds)		30.3 (5.7)	
Large (>16 beds)		33.4 (5.4)	

QSC = Quality of Spiritual Care Scale; FATE-S = Family Assessment of Treatment at the End-of-Life—Short Version; FPCS = Family Perceptions of Care Scale; TIME = Toolkit of Instruments to Measure End-of-Life Care—After Death Bereaved Family Member Interview (Nursing Home version).

spirituality, such as the Spiritual Well-Being Scale, Spiritual Perspective Scale, and Meaning in Life Scale, are included in TIME; however, these focus on quality of life.<sup>23</sup>

Quality measures address a specific aspect of care or related outcome for a population of patients, and are based on an accepted standard of care.<sup>11</sup> Measures to assess quality are evaluated according to several criteria, most notably their feasibility/usability and degree of reliability and validity.<sup>28</sup> In the present study, the QSC scale demonstrated very good reliability with good internal consistency, as assessed by alpha coefficient in a family caregiver population. Less than 15% of respondents had a maximum QSC score, and nearly all respondents completed greater than 80% of the items, which suggest excellent feasibility of administration. Also, the QSC had significant and expected correlations in both direction and magnitude

with items from instruments related to the quality of spiritual care for caregivers.

There were several limitations to our study. Our sample size was modest to conduct validity and reliability analyses and the study population consisted of predominantly white, older women; consequently, the generalizability of our findings to other populations is uncertain, including those not receiving end-of-life care in long-term care settings. Because family members were asked to respond several weeks after the death of their loved ones, there may be recall bias. The cross-sectional design did not allow us to draw definitive conclusions about the causal relationships of the variables of interest and also did not allow us to conduct test-retest, which would have improved the validity of the scale. However, use of an established framework, item development from prior research, a high alpha coefficient, and

factor analysis all support the preliminary validity and reliability of the QSC.

### Conclusion

The QSC scale appears to be a valid and reliable measure of the quality of spiritual care in family members of dying long-term care residents. At a time when hospice and palliative care providers and policy makers are adopting a quality improvement orientation and reimbursement strategies tied to value, the quality of spiritual care will need to be reliably assessed and reported.<sup>29,30</sup> This movement will require providers to use a data-informed approach to measure care and outcomes, and to identify areas of improvement.<sup>11,29</sup> Although the QSC may assist hospice and palliative care providers in these efforts, future validation studies with multiple, diverse populations and a longitudinal design are needed to refine and further verify this measure.

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