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What Impact Do Chaplains Have? A Pilot Study of Spiritual AIM for Advanced Cancer Patients in Outpatient Palliative Care.

### Permalink

<https://escholarship.org/uc/item/1994p6qn>

### Journal

Journal of pain and symptom management, 54(5)

### ISSN

0885-3924

### Authors

Kestenbaum, Allison  
Shields, Michele  
James, Jennifer  
[et al.](#)

### Publication Date

2017-11-01

### DOI

10.1016/j.jpainsymman.2017.07.027

Peer reviewed



Published in final edited form as:

*J Pain Symptom Manage.* 2017 November ; 54(5): 707–714. doi:10.1016/j.jpainsymman.2017.07.027.

## What Impact Do Chaplains Have? A Pilot Study of Spiritual AIM for Advanced Cancer Patients in Outpatient Palliative Care

Allison Kestenbaum, MA, MPA, BCC, ACPE Certified Educator<sup>1</sup>, Michele Shields, D. Min., BCC, ACPE Certified Educator<sup>2</sup>, Jennifer James, MSW, MSSP<sup>3</sup>, Will Hocker, M.Div., MSW, BCC<sup>2</sup>, Stefana Morgan, MD<sup>4</sup>, Shweta Karve, MD<sup>5</sup>, Michael W. Rabow, MD<sup>6</sup>, and Laura B. Dunn, MD<sup>5</sup>

<sup>1</sup>Doris A. Howell Palliative Care Service, University of California, San Diego Health; San Diego, California

<sup>2</sup>Spiritual Care Department, University of California San Francisco Medical Center and UCSF Benioff Children's Hospital; San Francisco, California

<sup>3</sup>Department of Social and Behavioral Sciences, School of Nursing, University of California, San Francisco; San Francisco, California

<sup>4</sup>Department of Psychiatry, University of California, San Francisco; San Francisco, California

<sup>5</sup>Department of Psychiatry and Behavioral Sciences, Stanford University; Stanford, California

<sup>6</sup>Department of Medicine, University of California, San Francisco; San Francisco, California

### Abstract

**Context**—Spiritual care is integral to quality palliative care. Although chaplains are uniquely trained to provide spiritual care, studies evaluating chaplains' work in palliative care are scarce.

**Objectives**—The goals of this pre-post study, conducted among patients with advanced cancer receiving outpatient palliative care, were to evaluate the feasibility and acceptability of chaplain-delivered spiritual care, utilizing the Spiritual Assessment and Intervention Model (“Spiritual AIM”); and to gather pilot data on Spiritual AIM's effects on spiritual well-being, religious and cancer-specific coping, and physical and psychological symptoms.

**Methods**—Patients with advanced cancer (n=31) who were receiving outpatient palliative care were assigned based on chaplains' and patients' outpatient schedules, to one of three professional chaplains for three individual Spiritual AIM sessions, conducted over the course of approximately six to eight weeks. Patients completed the following measures at baseline and post-intervention: Edmonton Symptom Assessment Scale (ESAS), Steinhauser spirituality, Brief Religious Coping (Brief RCOPE), Functional Assessment of Chronic Illness Therapy—Spiritual (FACIT-Sp-12),

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**Corresponding Author:** Laura B. Dunn, MD, Professor of Psychiatry and Behavioral Sciences, Department of Psychiatry and Behavioral Sciences, Stanford University, 401 Quarry Road, Stanford, CA 94305, Phone: 650-725-7709, Fax: 650-724-3144, laura.dunn@stanford.edu.

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Mini-Mental Adjustment to Cancer (Mini-MAC), Patient Dignity Inventory, Center for Epidemiological Studies – Depression (CES-D, 10-item), and Spielberger State Anxiety Inventory (STAI-S).

**Results**—From baseline to post-Spiritual AIM, significant increases were found on the FACIT-Sp-12 Faith subscale, the Mini-MAC Fighting Spirit subscale, and Mini-MAC Adaptive Coping factor. Two trends were observed, i.e., an increase in Positive religious coping and an increase in Fatalism (a subscale of the Mini-MAC).

**Conclusion**—Spiritual AIM, a brief chaplain-led intervention, holds potential to address spiritual needs, as well as religious and general coping in patients with serious illnesses.

### Keywords

chaplaincy; spiritual care; palliative care; cancer; spiritual distress; religious coping

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## INTRODUCTION

Many people turn to their spiritual resources as a means of coping;<sup>1,2</sup> and spiritual care is now considered an essential component of high-quality palliative care.<sup>3,4</sup> Among patients with life-threatening illnesses and end-of-life (EOL) concerns, the majority want spirituality included in their care;<sup>5</sup> patients who reported their spiritual needs were not met reported lower quality of care and lower satisfaction with care.<sup>6</sup> Outcomes such as aggressiveness and costs of EOL care appear related to patients' spiritual needs. In the Coping with Cancer study, a prospective study of advanced cancer patients, patients who reported that their spiritual or religious needs were "largely or completely supported" by the clinical team ("e.g., doctors, nurses, chaplains") were more likely to receive hospice care<sup>7</sup> and incurred lower EOL costs of care.<sup>8</sup>

Notably lacking in the palliative care research literature are descriptions of *how* spiritual care is provided—by whom, using what models of assessment and intervention, and seeking what outcomes.<sup>9,10</sup> Spiritual care provision in the healthcare setting too often remains shrouded in mystery.<sup>10</sup> In inpatient settings, although a chaplain may visit a patient (usually only once or twice), other healthcare team members often are unaware of what transpired.<sup>10–13</sup>

Although guidelines for quality palliative care emphasize the role that any member of the interdisciplinary team may play in obtaining spiritual data,<sup>3</sup> and while providers of any discipline may provide space for patients to discuss existential distress,<sup>14,15</sup> chaplains are uniquely trained to assess each individual's spiritual needs and develop tailored interventions.<sup>10,16,17</sup> However, without detailed descriptions or rigorous evaluations of chaplains' activities, it is difficult to characterize or evaluate professional chaplains' work.<sup>9,11,17,18</sup>

The goals of this study, conducted in the outpatient palliative care setting, were: 1) to evaluate the feasibility and tolerability of a chaplain-delivered spiritual care intervention, which utilized a well-articulated model (Spiritual Assessment and Intervention Model);

“Spiritual AIM”),<sup>16</sup> and 2) to evaluate the impact of Spiritual AIM on spiritual well-being, religious and cancer-specific coping, and physical and psychological symptoms.

## METHODS

### Description of Spiritual AIM

Spiritual AIM was developed through 25 years of clinical practice and supervision, and has been taught to over a hundred diverse chaplain trainees. Spiritual AIM is one of few spiritual assessment models that articulates assessments, interventions, and outcomes, and that has been empirically studied.<sup>19,20</sup> Spiritual AIM is not a questionnaire or a structured interview. Rather, the patient’s spiritual need is assessed in the pastoral encounter, which focuses on the patient’s primary concerns. Chaplains then choose from a set of corresponding interventions to each assessment category to inform their spiritual care to the patient. Spiritual AIM’s development, theoretical underpinnings, main components, and illustrative cases are described in detail elsewhere.<sup>16</sup>

Spiritual AIM posits that every human being, by virtue of being human, has three fundamental or “core” spiritual needs: for meaning and direction (referred to in Spiritual AIM “shorthand” as “Meaning and Direction”); for self-worth and belonging to community (“Self-Worth”); and to love and be loved, often facilitated through seeking reconciliation when relationships are broken (“Reconciliation”). Spiritual AIM asserts that in a crisis—such as facing one’s mortality—one of three core spiritual needs emerges most strongly, influencing the patient’s subjective thoughts and feelings as well as affecting their observable words and behaviors. In Spiritual AIM, the chaplain’s pastoral encounter requires diagnosing an individual’s primary unmet spiritual need, devising and implementing a plan for addressing this need, and evaluating desired and actual outcomes of the intervention. Currently, these aspects of Spiritual AIM are conducted qualitatively by the chaplain, during meetings with the patient. The focus of Spiritual AIM is on relationships—and the idea that healing happens in relationship.

### Participants

Patients with advanced cancer were recruited from an outpatient palliative care service at an academic, urban comprehensive cancer center. Inclusion criteria were an advanced cancer diagnosis (i.e. based on clinician report—i.e., the palliative care clinician expected the patient to die from their cancer within one year), receipt of concurrent oncologic and palliative care, and willingness to speak with a board certified (or eligible) chaplain for three one-on-one visits, either in person or by telephone. Patients who had had at least one visit with their palliative care provider (an attending physician, a palliative medicine fellow, or a nurse practitioner) were offered enrollment, in order that that the palliative care provider could first to address patients’ presenting physical symptoms (e.g., pain, nausea) before introducing the study. If patients met inclusion criteria, providers briefly described the Spiritual AIM study, gave patients a one-page description of the study, and asked if they were willing to be contacted by the Research Coordinator.

Three chaplains (MS [n=11 patients], AK [n=10 patients], and WH [n=10 patients]) delivered the Spiritual AIM intervention. The chaplains ranged in age (32 to 57 years), faith background (United Methodist, Episcopalian, Jewish), number of years working as a chaplain (9 to 32 years), and years of experience using Spiritual AIM (3 to 22 years). Two of the chaplains were board certified, one was board certification eligible. Chaplains met weekly with researchers to promote consistency in assessment and interventions. All chaplains were trained intensively by the creator of Spiritual AIM.

## Procedures

At the initial meeting with eligible participants, the Research Coordinator obtained written informed consent for the study. Participants completed baseline self-report measures on paper. This was followed by their first individual session with the chaplain. Strict randomization was not possible due to chaplains' and patients' schedules in the outpatient setting, so chaplains were assigned based on convenience of scheduling. No attempt was made to match patients to chaplains by faith, gender, or other variables, however. Two additional chaplain sessions, scheduled approximately two to three weeks apart, were held in person or by telephone, if the patient was too ill to or otherwise unable to attend a face-to-face visit. Each session lasted approximately 45 to 60 minutes, and was digitally audiorecorded (for the purpose of studying Spiritual AIM) and professionally transcribed. Within two weeks after the third Spiritual AIM session, the Research Coordinator administered the same set of measures and only after patient completed these, conducted an exit interview. The chaplains were blind to patients' responses on the measures. The pre-post study was intentionally designed to gather pilot data for hypothesis generation. The scope, timeline (18 months) and budget of the project did not allow for a full randomized controlled trial of Spiritual AIM. The study design and procedures were approved prior to commencing recruitment and any study-related visits by the University of California, San Francisco Committee on Human Research.

## Measures

Demographic and clinical data (cancer type) were obtained from electronic medical records with the patient's consent. The patient's religion or faith (including "none") was identified by the chaplain during visits with the patient. Patients completed the following set of self-report measures at both baseline and exit interview: Edmonton Symptom Assessment Scale (ESAS; 10 items; cancer-related symptoms);<sup>21</sup> Center for Epidemiological Studies Depression (CES-D-10; 10 items; depressive symptoms);<sup>22,23</sup> Spielberger State Anxiety Inventory (STAI-S; 20 items; anxiety symptoms);<sup>24</sup> Functional Assessment of Chronic Illness Therapy-Spiritual (FACIT-Sp-12; 12 items comprising 3 subscales assessing spiritual well-being—i.e., Meaning, Faith, and Peace);<sup>25–28</sup> Steinhauser spirituality screen (one item, spiritual distress);<sup>29</sup> Brief RCOPE (14 items; two 7-item subscales [positive and negative religious coping]);<sup>30</sup> Patient Dignity Inventory (PDI; 25 items; spiritual, existential, and psychosocial distress);<sup>31</sup> and Mini-Mental Adjustment to Cancer scale (Mini-MAC; 29 items; cancer-related coping; five subscales [Fatalism, Fighting Spirit, Anxious Preoccupation, Helplessness/Hopelessness, Cognitive Avoidance]; also calculated as two higher-order coping constructs, i.e., Adaptive Coping [Fighting Spirit, Cognitive Avoidance, Fatalism], and Maladaptive Coping [Helplessness/Hopelessness, Anxious

Preoccupation]).<sup>32–35</sup> The FACIT-Sp-12 and Steinhauser were chosen because they represent the widest application so far in the burgeoning field of spiritual care research of spirituality measures and because they measure spirituality, as distinct from religious coping.

### Data analysis

Descriptive statistics and frequency distributions were calculated for demographic and clinical characteristics using SPSS Version 22.0. Paired t-tests were used to examine changes from baseline (pre-intervention) to post-intervention.

## RESULTS

Recruitment goals were readily achieved (n=31; original target was 30 patients) within the 18-month funded study period, nine months of which were allotted for enrollment. All patients who initiated the study completed three sessions with the chaplain, including six patients who reported no religious affiliation. None of the patients reported undue burden of these visits. All but two expressed in exit interviews that they benefited from the meetings with the chaplain.

Table 1 provides demographic and clinical characteristics of study participants. Patients had a mean age of 59.4 years (SD 9.9; range 34 to 80). A broad range of cancer types was represented. Identified core spiritual needs, as assessed by the chaplain who worked with the patient, were approximately evenly distributed across the three core spiritual needs: eleven patients were assessed as having a core spiritual need of Meaning and Direction; eleven as Self-Worth; and nine as Reconciliation.

Table 2 provides baseline and post-Spiritual AIM scores on the study measures. At baseline, the sample reported low overall levels of cancer-related symptoms, “fair” to “good” overall quality of life, moderate scores on the Steinhauser spiritual well-being item, and mild to moderate levels of depressive and anxiety symptoms. There were no significant changes from baseline to post-Spiritual AIM on any of these measures.

On the FACIT-Sp-12, compared to a large sample of adult cancer survivors, our sample scored approximately one standard deviation below the mean on each subscale at baseline.<sup>25</sup> Post-Spiritual AIM, a significant increase was observed only on the Faith subscale of the FACIT-Sp-12.

At baseline, mean scores on the Brief RCOPE Positive and Negative religious coping subscales were lower than previously published norms.<sup>36</sup> Post-Spiritual AIM, there was a trend toward an increase (improvement) in Positive religious coping, while no significant change was seen in Negative religious coping.

On the Mini-MAC, we found a significant increase on the Fighting Spirit subscale and a trend toward an increase on the Fatalism subscale. When analyzed in terms of Adaptive or Maladaptive Coping, a significant increase (improvement) was observed in Adaptive Coping from baseline to post-Spiritual AIM.

Table 3 provides examples of qualitative material from patient-chaplain interactions, elucidating each of the main components of Spiritual AIM (assessment, intervention, and outcome) for each of the three core spiritual needs.

## DISCUSSION

The unique work of chaplains deserves both careful elucidation and close examination. Empirical studies focusing specifically on chaplains' work with palliative care patients are scarce.<sup>9</sup> This study provides preliminary evidence for feasibility and acceptability of Spiritual AIM, a well-articulated, brief, chaplain-delivered spiritual care intervention, implemented with advanced cancer patients receiving palliative care. Conducted over a relatively short time frame, successful recruitment and retention of advanced cancer patients from a single outpatient palliative care practice speaks to the interest of patients in incorporating spiritual care into their overall cancer care.

We observed increases from pre- to post-Spiritual AIM in several aspects of spiritual well-being: i.e., mean scores increased on both the Faith subscale of the FACIT-Sp-12 as well as the positive religious coping subscale of the Brief RCOPE. Although the Brief RCOPE's title includes the word "religious," it demonstrates utility to measure spirituality and religion. Findings should be viewed with the understanding that these represent the most widely applied and validated spiritual measures. However, it should be noted that Spiritual AIM was developed independently of any specific assessments; therefore, it is difficult to know whether these measures are the most appropriate or sensitive to any impact of the intervention on patients. However, based on a conceptualization of the chaplain as the spiritual care specialist on the interdisciplinary care team,<sup>37</sup> a well-developed, chaplain-delivered spiritual care intervention should, in theory, affect spiritual and religious outcomes. If chaplains are the members of the interdisciplinary team who are most likely to explicitly discuss and/or represent the patient's relationship with God or the sacred, perhaps this relates to the trend observed in this study.

It is possible that the FACIT-Sp-12 and the Brief RCOPE, which both have some parallels to Spiritual AIM, are more sensitive to the kinds of effects that Spiritual AIM is hypothesized to exert.<sup>26</sup> For example, for the FACIT-Sp-12, the Faith subscale includes items about finding strength or comfort in one's faith or spiritual beliefs, feeling that one's illness has strengthened one's faith or spiritual beliefs, and feeling that "whatever happens with my illness things will be okay." It could be argued that the subscales of the FACIT-Sp-12 measure psychosocial vs. spiritual factors. Nevertheless, there is substantial evidence that the three subscales tap important constructs related to purpose, meaning, comfort, and peace that are associated with quality of life—regardless of one's specific faith or belief system.<sup>38</sup> In Spiritual AIM, the chaplain explores the patient's faith and spiritual beliefs and attempts to sort out which aspects may impede or facilitate peace.<sup>16</sup>

Spiritual AIM and RCOPE are attuned to how the patient behaves, especially their actions towards others, in the context of a serious illness. There is also a shared interest in how these actions affect relationships (with other people and God) and how they change over time.<sup>16,36</sup> Each framework posits the central and critical role of "relationship"—i.e. that of the patient



with the chaplain, other medical providers, family or with God. An example from the Positive religious coping subscale of the Brief RCOPE highlights this: “Tried to put my plans into action together with God.” Though questions remain about explicit God language in the RCOPE and measuring the religious coping of patients for whom language about God does not resonate or who identify as non-religious. Finally, the FACIT-Sp-12 has been used successfully in other studies in patients who identify as “spiritual yet not religious.”<sup>39</sup> Spiritual AIM and professional chaplaincy favor assessments and interventions that are feasible and effective in patients of any or no faith background.<sup>16,40</sup>

The significant increases on the Fighting Spirit subscale and the Adaptive Coping factor of the Mini-MAC are intriguing. Spiritual AIM tasks chaplains with helping patients to address their own challenges, utilizing interventions tailored to each patient’s core spiritual need. These findings, if replicated, might suggest that even by a brief intervention like Spiritual AIM can help patients with serious or life-threatening illnesses to cope more adaptively. The trend toward an increase in Fatalism also warrants further exploration. Importantly, the “Fatalism” construct of the Mini-MAC may be conceptualized (or even better, relabeled) as gratitude or active surrender, as reflected by the items comprising the scale (e.g., “I’ve put myself in the hands of God;” “I count my blessings;” “I’ve had a good life, what’s left is a bonus.”)<sup>32</sup> Further work is required to determine whether such changes can be attributed to Spiritual AIM, to some other factor(s) (e.g. religious community, supportive family, another member of the interdisciplinary team), or whether they represent a natural change over time as patients cope with illness.

While intriguing, findings of this study must be viewed cautiously. Since patients were receiving concurrent palliative care, it is possible that observed improvements were related to prior or distinct interventions by the palliative care or other providers. However, the fact that no changes were observed for physical symptoms or for several of the psychological measures argues against this possibility. However, relatively mild baseline levels on several of the symptoms scales may have limited our ability to detect changes. The study’s design (pre-/post-intervention, within-subjects, single-arm study) makes it difficult to evaluate whether Spiritual AIM, rather than unobserved intervening variables, were associated with changes. Further work is needed involving larger samples of patients, randomly assigned to Spiritual AIM compared to another brief psychosocial or spiritual care intervention or to treatment-as-usual. Although Spiritual AIM is a well-articulated model, there is a need for a standardized method for teaching the intervention to providers (i.e., manualization).

These preliminary findings suggest that Spiritual AIM may hold promise as a brief, chaplain-led spiritual care intervention for patients with serious or life-limiting illnesses.

## Acknowledgments

This work was funded by a grant from the John Templeton Foundation and the HealthCare Chaplaincy.

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**Table 1**

## Demographic and clinical characteristics (n=31)

	<b>Mean (SD)</b>
Age (years)	59.4 (9.9) [Range: 34 – 80]
	<b>n (%)</b>
Gender	
Female	20 (64.5%)
Male	11 (35.5%)
Ethnicity	
White	27 (87.1%)
Asian	3 (9.7%)
Hispanic	1 (3.2%)
Religious self-identification	
Christian	18 (58.1%)
Jewish	4 (12.9%)
Buddhist	3 (9.7%)
None	6 (19.4%)
Cancer type	
Breast	6 (19%)
Gynecologic	7 (23%)
Gastrointestinal	5 (16%)
Prostate	5 (16%)
Head/neck	3 (10%)
Other	5 (16%)

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**Table 2**

Measures of symptoms, spiritual well-being, and coping: Baseline and post-Spiritual AIM scores (n=31)

	<b>Baseline Mean (SD)</b>	<b>Post-Spiritual AIM Mean (SD)</b>	<b>Paired samples t-test</b>
ESAS – Total Score	25.0 (12.7)	24.4 (12.9)	t=0.465; p=0.646
Overall quality of life	3.5 (0.8)	3.5 (0.9)	t=-.215; p=0.832
Steinhauser spiritual well-being	3.1 (1.1)	3.1 (1.1)	t=-.465; p=0.646
CES-D-10	4.2 (2.2)	4.1 (2.5)	t=0.680; p=0.502
STAI-S	43.6 (12.5)	41.9 (11.3)	t=1.071; p=0.294
FACIT-Sp-12:			
Meaning	11.8 (3.9)	10.6 (4.4)	t= 1.534; p=0.136
Peace	9.0 (3.6)	9.2 (4.2)	t=-0.845; p=0.405
Faith	7.1 (3.9)	8.8 (5.1)	t=-2.520; p=0.018
Patient Dignity Inventory	53.6 (14.4)	51.6 (16.5)	t=1.101; p=0.280
Brief RCOPE:			
Positive religious coping	14.0 (5.7)	15.0 (5.9)	t=-1.806; p=0.082
Negative religious coping	9.2 (2.6)	9.3 (4.1)	t=0.252; p=0.803
Mini-MAC:			
Fatalism	11.2 (2.5)	11.6 (2.4)	t=-1.794; p=0.084
Fighting spirit	10.7 (2.5)	11.8 (2.4)	t=-2.205; p=0.036
Helplessness/hopelessness	14.1 (3.9)	13.4 (5.7)	t=0.888; p=0.382
Anxious preoccupation	20.7 (5.6)	20.2 (5.0)	t=0.719; p=0.478
Cognitive avoidance	9.0 (2.1)	9.2 (2.7)	t=-0.668; p=0.510
Mini-MAC:			
Maladaptive coping	34.8 (7.7)	32.3 (12.1)	t= 1.380; p=0.178
Adaptive coping	30.2 (5.4)	32.6 (5.2)	t=-2.517; p=0.018

**Table 3**

Examples of Assessments, Interventions and Outcomes for each Core Spiritual Need in Spiritual AIM

Core Spiritual Need	Example of Assessment Marker	Patient Quotation
Meaning and Direction	Patient tends to intellectualize circumstances	<i>Something was going astray. And so the marital counseling – my wife and I thought this is the best we can do to try to analyze or objectify whatever the imbalance was.</i>
Self-Worth and Belonging	Patient blames self, not others.	<i>When I step away from that routine, I feel like a failure...I'm a quitter, like I've always thought of myself all my life. So I'm just going back into old patterns.</i>
Reconciliation/To Love and Be Loved	Patient blames and mistrusts others	<i>My husband's daughter is just this stranger who comes across as harsh, who's been hurting her father for years and years and years. She just disappears for two, three years at a time and then will call him up when she needs money or something.</i>
Core Spiritual Need	Example of Intervention Marker	Chaplain Quotation
Meaning and Direction	Chaplain asks how patient has made decisions in the past	<i>Have there been other times in your life where you needed to reintegrate in some way? You had been taking all these classes, which sounds amazing. Is that kind of how you've done it in the past?</i>
Self-Worth and Belonging to Community	Chaplain listens to the story of patient's illness/suffering	<i>I'm wondering if there is more that you'd like me to know about this cancer, about the supports in your life.</i>
Reconciliation/To Love and Be Loved	Demonstrate ability to tolerate patient's anger.	<i>I appreciate you saying that you have a sense of what's helpful to you from a chaplain and what's not so helpful. That's good for me to hear. And it sounds like you have some concern about me as a chaplain maybe judging you or trying to push stuff on you.</i>
Core Spiritual Need	Example of Outcome Marker	Patient Quotation
Meaning and Direction	Patient identifies own primary/prominent heart's desire (i.e., what is most important)	<i>The chaplain helped me realize where I find spirituality...I pretty much find it in talking with people. Seems to be the place where I find the joy, the strength, the everything. And I thought that was really interesting because I have been doing that but I didn't know I was doing that.</i>
Self-Worth and Belonging to Community	Patient's actions/behavior suggest enhanced self-worth.	<i>The chaplain made me think a lot about where my goodness and the love that I feel as a person came from, which was settled in on my dad...</i>
Reconciliation/To Love and Be Loved	Pt experiences reconciliation/forgives.	<i>I have a stepdaughter who I've had real problems with and so we talked about that. The conversations with the chaplain were good in that I will try to see my stepdaughter in as positive light as possible, that she's not in control of her actions and her behavior and just try to kind of coexist, if for nothing else but for my husband and his relationship with his grandson.</i>