Spirituality and Quality of Life in Patients Undergoing Radiotherapy

Bethany Samuelson, MS4
OHSU Radiation Medicine Presentation
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Does Western medicine actually care about spirituality and QOL?
369 outpatients at a comprehensive cancer care center
66% reported they were spiritual but not religious
73% reported at least one spiritual need
58% thought it appropriate for physicians to inquire about their spiritual needs
18% reported their spiritual needs were not being met
Patients who reported that their spiritual needs were not being met gave lower ratings of the quality of care and reported lower satisfaction with care
Religiousness and Spiritual Support Among Advanced Cancer Patients and Associations With End-of-Life Treatment Preferences and Quality of Life

Tracy A. Balboni, Lauren C. Vanderwerker, Susan D. Block, M. Elizabeth Paulk, Christopher S. Lathan, John R. Peteet, Holly G. Prigerson From the Harvard Radiation Oncology Program; Dana-Farber Cancer Institute; Brigham and Women’s Hospital; Harvard Medical School, Boston, MA; and University of Texas Southwestern Medical Center, Dallas, TX

- 230 patients with advanced cancer diagnosis and failure of first line-chemo
- 88% considered religion to be at least somewhat important
- 47% reported that their spiritual needs were minimally or not at all supported by a religious community
- 72% reported their spiritual needs were supported minimally or not at all by the medical system
- *Spiritual support by religious communities or the medical system was significantly associated with improved patient QOL*
- Religiousness was significantly associated with wanting all measures to extend life
“If God Wanted Me Yesterday, I Wouldn't Be Here Today”: Religious and Spiritual Themes in Patients' Experiences of Advanced Cancer


- Scripted interviews of 68 patients with advanced cancer
- 78% of patients stated that religion and spirituality had been important to their cancer experience
- 85% of patients identified one or more religious/spiritual concerns
- 5 primary themes: coping, practices, beliefs, transformation and community
Spirituality as a core domain in the assessment of quality of life in oncology

Hayley S. Whitford, Ian N. Olver and Melissa J. Peterson
Royal Adelaide Hospital Cancer Centre, Adelaide, SA, Australia

- 449 patients completed FACIT-Sp and MAC assessments
- Spiritual well-being
  - Demonstrated a significant positive association with QOL and fighting spirit
  - Demonstrated a significant negative relationship with helplessness/hopelessness and anxious preoccupation
  - Was a significant unique contributor to QOL beyond PWB, SWB or EWB
  - Did not appear to significantly impact patients’ ability to enjoy life despite chronic symptoms of pain or fatigue
50 adult hospice patients with a cancer diagnosis completed questionnaires assessing QOL and spirituality.

Strong, positive correlations were found between social and spiritual well-being, communicative acts and QOLEOL.

Spiritual well-being most significantly predicted the QOLEOL, explaining 53.5% of variance.
Is there a correlation between spirituality and anxiety and depression in patients with advanced cancer?

Rachel C. McCoubrie Andrew N. Davies

- 85 day hospice patients completed 3 questionnaires assessing anxiety, depression and spirituality
- Significant negative correlations were found between both anxiety and depression scores and overall spiritual well-being
- A significant negative correlation was found between the existential well-being scores and anxiety and depression scores
- No correlation between religious well-being and anxiety or depression
Patterns of social, psychological, and spiritual decline toward the end of life in lung cancer and heart failure

Murray SA, Kendall M, Grant E, Boyd K, Barclay S, Sheikh A.

- 24 patients with lung cancer and 24 patients with heart failure gave in-depth interviews during the last year of life.
- Both psychological distress and spiritual distress and questioning tended to happen at the same 4 points of transition:
  - Diagnosis
  - Discharge after treatment
  - Disease progression
  - Terminal stages
Spiritual Pain among Patients with Advanced Cancer in Palliative Care

Mako C. Galek K. Poppito SR. Spiritual Pain Project, NY

- 57 patients with advanced cancer in a palliative care hospital were interviewed by chaplains
- 96% of patients reported experiencing spiritual pain at some time in their lives, 61% at time of interview
- Intensity of spiritual pain was correlated with depression, but not physical pain or severity of illness
- Intensity of spiritual pain did not vary by age, gender, disease course or religious affiliation
398 cancer survivors and 796 age- gender- and education-matched respondents with no cancer history completed MIDUS survey.

Cancer survivors demonstrated resilient functioning in social well-being, spirituality and personal growth, despite poorer function in a number of other domains (mental health, mood, environmental mastery and self-acceptance) as compared to matched samples with no cancer history.

Cancer survivors demonstrated an increase in religious identification and spirituality following treatment as compared to before treatment, although increases in these areas were also noted in controls over similar time periods.
Spirituality is clearly an important component of the cancer experience for many patients. Spiritual well-being is positively correlated with a number of positive outcomes, including decreased depression and anxiety. Patients who feel their spiritual needs are not being addressed report lower satisfaction with their care. Spirituality becomes exceptionally important at a number of major transition points in the cancer treatment process, including diagnosis and discharge from treatment.
What are we doing about it?

- The FACIT-Sp was administered to all new consults prior to and following treatment over a 3 year period from 1/2006 to 12/2008.
- Additionally, some patients completed questionnaires at follow-up visits.
- Demographics data were collected from the charts of all patients who completed questionnaires.
FACT-G (Version 4)

Below is a list of statements that other people with your illness have said are important. Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

### PHYSICAL WELL-BEING

<table>
<thead>
<tr>
<th>Q71</th>
<th>I have a lack of energy</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q72</td>
<td>I have nausea</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q73</td>
<td>Because of my physical condition, I have trouble meeting the needs of my family</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q74</td>
<td>I have pain</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q75</td>
<td>I am bothered by side effects of treatment</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q76</td>
<td>I feel ill</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q77</td>
<td>I am forced to spend time in bed</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### SOCIAL/FAMILY WELL-BEING

<table>
<thead>
<tr>
<th>Q78</th>
<th>I feel close to my friends</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q79</td>
<td>I get emotional support from my family</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q80</td>
<td>I get support from my friends</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q81</td>
<td>My family has accepted my illness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q82</td>
<td>I am satisfied with family communication about my illness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q83</td>
<td>I feel close to my partner (or the person who is my main support)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Regardless of your current level of sexual activity, please answer the following question. If you prefer not to answer it, please mark this box and go to the next section.**

| Q84 | I am satisfied with my sex life | 0 | 1 | 2 | 3 | 4 |

### EMOTIONAL WELL-BEING

<table>
<thead>
<tr>
<th>Q85</th>
<th>I feel sad</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q86</td>
<td>I am satisfied with how I am coping with my illness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q87</td>
<td>I am losing hope in the fight against my illness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q88</td>
<td>I feel nervous</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q89</td>
<td>I worry about dying</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q90</td>
<td>I worry that my condition will get worse</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### FUNCTIONAL WELL-BEING

<table>
<thead>
<tr>
<th>Q91</th>
<th>I am able to work (include work at home)</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q92</td>
<td>My work (include work at home) is fulfilling</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q93</td>
<td>I am able to enjoy life</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q94</td>
<td>I have accepted my illness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q95</td>
<td>I am sleeping well</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q96</td>
<td>I am enjoying the things I usually do for fun</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Q97</td>
<td>I am content with the quality of my life right now</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

FACIT-Sp-12 (Version 4)

Below is a list of statements that other people with your illness have said are important. Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel peaceful</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have a reason for living</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My life has been productive</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have trouble feeling peace of mind</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel a sense of purpose in my life</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I am able to reach down deep into myself for comfort</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel a sense of harmony within myself</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My life lacks meaning and purpose</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I find comfort in my faith or spiritual beliefs</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I find strength in my faith or spiritual beliefs</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My illness has strengthened my faith or spiritual beliefs...</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I know that whatever happens with my illness, things will be okay...</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Demographics

- 722 of 1369 (52.7%) possible patients participated
- 406 (56.2%) completed pre and post RT spirituality forms
- Average age at diagnosis was 61.1 years.
- 270 (66.5%) were male, 136 (33.5%) were female
- 340 (83.7%) received definitive treatment, 64 (15.8%) received palliative treatment
## Results

<table>
<thead>
<tr>
<th></th>
<th>Pre-Treatment</th>
<th>Post-Treatment</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Well-Being</td>
<td>22.11</td>
<td>19.38</td>
<td>.000</td>
</tr>
<tr>
<td>Social Well-Being</td>
<td>22.69</td>
<td>22.56</td>
<td>.544</td>
</tr>
<tr>
<td>Emotional Well-Being</td>
<td>18.42</td>
<td>19.30</td>
<td>.000</td>
</tr>
<tr>
<td>Functional Well-Being</td>
<td>18.09</td>
<td>17.63</td>
<td>.063</td>
</tr>
<tr>
<td>FACT-G</td>
<td>81.31</td>
<td>78.85</td>
<td>.000</td>
</tr>
<tr>
<td>Meaning-Peace</td>
<td>24.91</td>
<td>25.18</td>
<td>.209</td>
</tr>
<tr>
<td>Faith</td>
<td>10.83</td>
<td>11.28</td>
<td>.007</td>
</tr>
<tr>
<td>Sp-12</td>
<td>35.74</td>
<td>36.45</td>
<td>.023</td>
</tr>
<tr>
<td>FACIT-Sp</td>
<td>117.10</td>
<td>115.31</td>
<td>.018</td>
</tr>
</tbody>
</table>
Physical Well-Being

- Decreased (22.11 to 19.38; p<0.001)
  - “I have lack of energy” increased (1.60 to 2.07; p<0.001)
  - “I have nausea” increased (0.36 to 0.70; p<0.001)
  - “I have trouble meeting the needs of my family” increased (0.97 to 1.23; p<0.001)
  - “I am bothered by the side effects of treatment” increased (0.59 to 1.44; p<0.001)
  - “I feel ill” increased (0.48 to 0.84; p<0.001)
  - “I am forced to spend time in bed” increased (0.56 to 0.95; p<0.001)
Social/Family Well-Being

- Very slight downward trend (22.69 to 22.56, \( p=0.544 \)), but not significant
- No significant changes on any individual question for any subgroup.
Emotional Well-Being

- Increased (18.42 to 19.30; p<0.001)
  - “I feel sad” decreased (1.04 to 0.91; p=0.007)
  - “I feel nervous” decreased (1.18 to 0.91; p<0.001)
  - “I worry that my condition will get worse” decreased (1.27 to 1.04; p<0.001)
Trended downward, but not significantly (18.09 to 17.63, p=0.063)

- “I am able to work” decreased (2.46 to 2.11; p <0.000)
- “My work is fulfilling” decreased (2.81 to 2.38; p <0.001)
- “I am able to enjoy life” decreased (2.95 to 2.82; p=0.006)
- “I am enjoying the things I usually do for fun” decreased (2.55 to 2.31; p=0.001)
- “I am content with the quality of my life right now” decreased (2.52 to 2.30, p=0.002)
Meaning-Peace

- Very slight upward trend (24.91 to 25.18; p=0.209), but not significant.
- No significant changes on any individual question for any subgroup.
- Only significant change was an increase in score for the breast group (24.35 to 25.65; p=0.005)
Faith

- Approached significant increase (10.83 to 11.28, p=0.007)
  - “My illness has strengthened my faith or spiritual beliefs” (2.11 to 2.31, p=0.001)
  - No significant changes on any other individual questions.
Combined Scores

- FACT-G decreased (81.31 to 78.85, \( p<0.001 \))
- Sp-12 trended upward (35.74 to 36.45, \( p=0.023 \))
- FACIT-Sp trended downward (117.10 to 115.31, \( p=0.018 \))
Subgroup Analysis: Men

- PWB decreased (22.49 to 19.81; p<0.001)
- EWB increased (18.55 to 19.37; p<0.001)
- Faith increase did not approach significance (10.79 to 11.00; p=0.302)
- FACT-G decreased (81.08 to 78.66; p=0.001)
- Responses to individual questions were similar to those of all-comers
Subgroup Analysis: Women

- PWB decreased (21.37 to 18.52; p<0.001)
- EWB increased (18.16 to 19.15; p<0.001)
- Faith increased (10.92 to 11.82; p=0.001)
- FACT-G trended downward (81.76 to 79.23; p=0.007)
- Sp-12 increased (36.09 to 37.46; p=0.006)

Some differences on individual questions:
  - “I have pain” increased (1.22 to 1.55; p=0.001)
  - “I know that whatever happens… things will be ok” increased (2.91 to 3.19; p=0.002)
Subgroup Analysis: Definitive

- PWB decreased (22.84 to 20.01; p<0.001)
- EWB increased (18.92 to 19.81; p<0.001)
- FACT-G decreased (83.29 to 80.56; p<0.001)
- FACIT-Sp trended downward (119.46 to 117.28, p=0.009)
- No significant changes in spiritual measures
- Responses to individual questions were similar to those of all-comers with exceptions:
  - “I have pain” increased (1.05 to 1.24; p=0.003)
Subgroup Analysis: Palliative

- PWB decreased (18.08 to 15.93; p=0.001)
- EWB increased, but not significantly, FACT-G decreased, but not significantly
- FACIT-Sp did not change significantly, but trend was upward (103.43 to 103.68; p=0.891)
Subgroup Analysis: Prostate

- PWB decreased (24.39 to 21.93; p<0.001)
- EWB increased (19.94 to 20.73; p=0.004)
- FACT-G decreased (86.72 to 83.77; p=0.001)
- No significant changes in spiritual measures, although Meaning-Peace, Faith and Sp-12 scores trended upward.
Subgroup Analysis: Breast

- PWB decreased (21.83 to 19.83; p<0.001)
- EWB increased (18.17 to 19.18; p=0.005)
- FACT-G trended down but did not change significantly (81.87 to 81.28; p=0.578)
- Meaning-Peace (24.35 to 25.65; p=0.005), Faith (9.94 to 11.11; p=0.003) and Sp-12 (34.29 to 36.76; p=0.001) scores all increased significantly.
Subgroup Analysis: GI

- PWB decreased (20.96 to 16.54; p<0.001)
- No other significant changes, although trends were consistent with all-comers.
- No significant changes in any spiritual measures.
Subgroup Analysis: Lung

- No significant differences in any measures, although trends were similar to other groups.

- Only two individual questions had significant changes:
  > “I am bothered by the side effects of treatment” (0.66 to 1.39; p=0.002)
  > “I am satisfied with my sex life” (1.27 to 0.92; p=0.004)
What do we do with the data?

- What does the literature say about interventions?
- Not much...
12 patients participated in structured life review interviews in a palliative care unit in Japan.

Mean QOL and spirituality subscale significantly increased after life reviews.

Predictors of treatment success: “positive view of life,” “pleasure in daily activities and good human relationships” and a “balanced evaluation of life.”

Predictors of treatment failure: “worries about future caused by disease,” “conflicts in family relationships” and “confrontation of practical problems”
Efficacy of Short-Term Life-Review Interviews on the Spiritual Well-Being of Terminally Ill Cancer Patients

Michiyo Ando RN, PhDa, Tatsuya Morita MDb, Tatsuo Akechi MD, PhDc, Takuya Okamoto MDd and Japanese Task Force for Spiritual Care

- 68 terminally-ill cancer patients in a palliative care unit were randomized to receive short term life reviews or general support only

- Short term life reviews were conducted
  - Therapists asked specific questions to discern patient priorities, important memories, etc
  - Therapists then created albums around the themes of patient discussion
  - Therapists presented albums to patients and discussed them

- Patients who received the life reviews demonstrated significant improvements in their FACIT-Sp scores following therapy
The Efficacy of Mindfulness-Based Meditation Therapy on Anxiety, Depression, and Spirituality in Japanese Patients with Cancer

Michiyo Ando, Tatsuya Morita, Tatsuo Akechi, Sayoko Ito, Masaya Tanaka, Yuka Ifuku, Toshimichi Nakayama.

- 28 patients undergoing anticancer treatment participated in 2 sessions of mindfulness-based meditation therapy including breathing, yoga movement and meditation over a 2 week time period.
- Anxiety and depression scores decreased significantly.
- FACIT-Sp increased, but not significantly 32±6.5 to 33±6.9 (p=0.69)
Conclusions

- Spirituality is important to many of our cancer patients, and the literature indicates that increased spiritual well-being contributes to increased overall QOL.
- Some patients, particularly female patients and breast patients, report an increase in spiritual well-being over the course of therapy.
- Addressing the spiritual needs of these and other patients may contribute to increased overall well-being, although at this time no verified interventions exist.
- Many opportunities exist for more research in this field.
References

- Andrea C. Phelps, MD; Paul K. Maciejewski, PhD; Matthew Nilsson, BS; Tracy A. Balboni, MD; Alexi A. Wright, MD; M. Elizabeth Paulk, MD; Elizabeth Trice, MD, PhD; Deborah Schrag, MD, MPH; John R. Peteet, MD; Susan D. Block, MD; Holly G. Prigerson, PhD J Religious Coping and Use of Intensive Life-Prolonging Care Near Death in Patients With Advanced Cancer AMA. 2009;301(11):1140-1147.
- Michiyo Ando RN, PhDa, Tatsuya Morita MDa, Tatsuo Akechi MD, PhDc, Takuya Okamoto MDd and Japanese Task Force for Spiritual Care Efficacy of Short-Term Life-Review Interviews on the Spiritual Well-Being of Terminally Ill Cancer Patients Journal of Pain and Symptom Management Volume 39, Issue 6, June 2010, Pages 993-1002