



**Pilot Study**

## Provider Spirituality and Holistic Healthcare Approaches in Naturopathic Medical Students

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### Abstract

**Objectives:** This pilot study gathered data about naturopathic medical students' experience of connection with the transcendent in daily life and the ways in which they anticipate incorporating spirituality in their future practice.

**Subjects:** Naturopathic physicians in training (n=32).

**Design:** Anonymous, self-report survey with both correlational and descriptive components.

**Outcome Measures:** Participants completed two surveys designed to measure provider spirituality, the likelihood of a provider asking about a patient's spiritual health, the importance of spirituality in patient interventions, and the anticipated methods for assessing and supporting patient spiritual growth.

**Results:** Results showed a positive correlation between provider spirituality and the importance naturopathic doctors in training place on incorporating spirituality in patient interventions. The responses to open-ended questions revealed that naturopathic medical students plan to support future patients in their spiritual growth by cultivating their mind-body connection. Finally, students plan to infer a patient's relationship with their spirituality indirectly, rather than with direct assessment.

**Conclusion:** Results suggest that while naturopathic medical students' report that incorporating spirituality in patient interventions is important, there may be barriers to assessing and addressing spirituality within holistic primary care.

**Keywords:** Medical students; Naturopathic medicine; Spirituality

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### Introduction

Recent studies have explored the role of Religion and Spirituality (R/S) as protective factors for health especially in reference to cancer and cardiovascular disease [1,2]. To date, health-related behavioral practices, social support, religious motivation and religious coping have all been identified as factors related to health [3,4]. In one study, women with no religious affiliation were 7 times as likely to have 4 or more breast cancer risk factors as women who attend services weekly [5]. Studies have also focused on the impact of R/S in adjustment to cancer diagnosis and suggest a relationship between spirituality, a sense of meaning, and greater well-being in patients [6]. In addition to exploring the relationships between R/S and physical health, studies have indicated that spirituality may be related to improved mental health, including reduced anxiety, depression and fear of death [7,8]. Furthermore, interpersonal constructs such as self-regulation and balancing intimacy and autonomy in relationships are linked with spiritual development [1,9].

Despite the connection between spirituality and health, many primary care practitioners report that they support patients' spiritual well-being in principle, yet receive little training in the area of addressing a patient's spirituality [10]. Sullivan, Lakoma and Block found that nearly 50% of medical students felt unprepared to address spiritual issues in end-of-life care [10]. Currently, there is no universal training curriculum on spirituality and health in medical schools in the United States (US), yet many patients desire to discuss matters of spirituality with their primary care practitioner, especially when facing a serious disease and the possibility of death [10-12].

In contrast to the training of allopathic physicians, naturopathic physicians are trained to take a holistic view of the patient, to consider what the potential barriers may be to optimal health and to stimulate the inherent self-healing process within each individual [13]. This paradigm of whole person healthcare incorporates the spiritual and appears to be an essential element in Complementary and Alternative Medicine (CAM) [14]. Some of the literature in the area of spirituality in primary care practice focuses on provider opinions about incorporating CAM. For example, Curlin found that only those practitioners who rated themselves as "very spiritual" integrate CAM in their practice [15]. In addition, acupuncturists and naturopaths scored higher on measures of religiosity and spirituality than did general internists and rheumatologists [15].

### Aims of the pilot study

Given the importance of spirituality within CAM, this pilot study sought to investigate:

- What methods might naturopathic medical students use in their future practice to support patients' spiritual growth?
- How might naturopathic medical students assess a patient's relationship with their spirituality?
- Does the daily spiritual experience of naturopathic medical students positively correlate with the extent to which they feel it is important to incorporate spirituality in patient interventions?

- Does the daily spiritual experience of naturopathic medical students positively correlate with how likely they are to ask a patient about their spiritual health?

## Materials and Methods

### Participants

Participants were 32 students in the Doctor of Naturopathic Medicine program at a Private university in the Pacific Northwest region of the US. Enrollment in the program was 479 students for the year 2014-2015 and 7% returned surveys. For 2014-2015, the student body was 83% female and 17% male and the average age was 30-years-old.

### Study design

A correlational and descriptive study design measured the potential association between naturopathic medical students' experience of connection with the transcendent in daily life and the ways in which they anticipate incorporating spirituality in their future practice. Descriptive questions provided detailed information about some of the potential methods future naturopathic physicians intend to use to assess and support patient spiritual health.

### Measures

Spirituality was measured by scores on the 16-item self-report Daily Spiritual Experiences Scale (DSES) [16]. The DSES was "Designed to assess ordinary experiences of connection with the transcendent in daily life," (pp30) and uses a 6-point Likert scale [17]. The DSES was developed to include language that is specifically associated with religion as well as language that captures aspects of spirituality not connected with religion. This is especially important to this study because past research found that naturopaths are more likely to describe themselves as very spiritual, but to report no religious affiliation [15]. The second part of the survey was specifically developed for use in the current study and consisted of two single-item questions to determine how likely naturopathic medicine students are to ask about a future patient's spiritual health and how important they think it is to incorporate spirituality in patient interventions. These two items were assessed on a 5-point Likert scale. The third and final descriptive portion of the survey consisted of two open-ended questions designed to assess the methods students may use in their future practice to support spiritual growth and how they might assess a patient's relationship with their own spirituality.

Participant responses to the open-ended questions asking them to describe the methods they would use to support patient's spiritual growth were classified into three general categories: (1) cultivating the mind-body connection, (2) relational healing and (3) nature healing. A rating sheet was developed with definitions outlining the different categories and a short training provided for two raters who were asked to assign a category to each. For the categorization of the responses for the open-ended question asking about methods naturopathic doctors in training may use to support patients in their spiritual growth, interrater reliability was high at 95%. For the second open-ended question examining ways in which future naturopathic physicians would assess a patient's relationship with their spirituality, researchers coded responses into one of three categories: (1) ask the patient directly, (2) infer through other information the patient provides and (3) other. For this open-ended question, interrater reliability was also high, at 99%. After receiving University Institutional Review Board approval for

the study, surveys were distributed to all students in the naturopathic medicine program of study.

## Results

### Descriptive statistics

The mean score for the overall DSES was (mean±standard deviation) 67.9±16. This mean score indicated that students experience a sense of connection with the transcendent most days. It appears that the mean for this sample of naturopathic medical students is somewhat higher than means reported in a previous study with a general college student sample of women, 46.87±18.69 and men, 48.65±13.48 [18]. In an effort to maximize the number of responses in the analyses, the series mean was calculated and entered for 3 questions on the DSES with missing data [19]. As suggested by Underwood's guide to scoring the DSES, the scale may also be divided into theistic and self-transcendent subscales whose mean scores were 3.92±1.25 and 4.56±0.83, respectively [16]. Since past research has indicated that naturopathic doctors consider themselves spiritual, but not religious, the lower mean (3.92±1.25) for the DSES theistic subscale consisting of 8 items that expressly use the word "God", is not surprising [15].

Scores on the first single-item question, "How likely are you to ask about a patient's spirituality?" returned a mean of 4.5±0.76, indicating that naturopathic medical students are between somewhat likely and very likely to ask about a patient's spirituality. The second single-item question, "How important is it to incorporate spirituality in patient interventions?" had a mean of 4.32±0.77, indicating that most respondents felt it was very important to somewhat important. As with the DSES, the series mean was calculated for a single missing data point for this question [19].

A total of 65 responses describing methods to support patients in their spiritual growth were reported and coded by raters into three methods of encouraging spiritual growth: cultivating the mind-body connection, relational healing and nature healing. As can be seen in figure 1, cultivating the mind-body connection was the most frequently reported method for supporting patients in their spiritual growth.

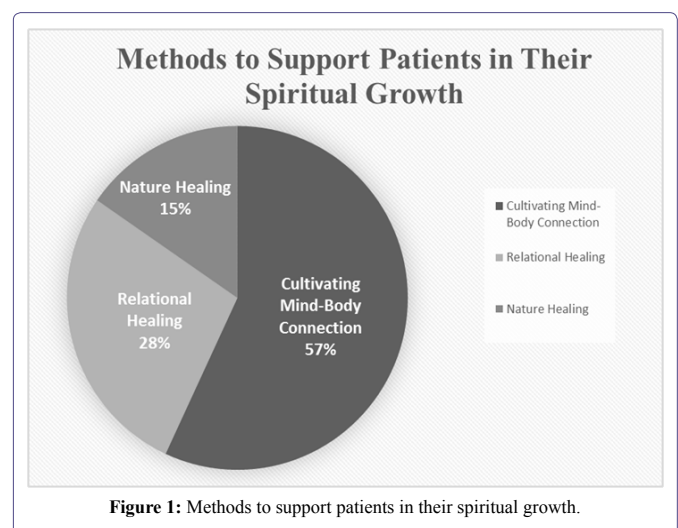


Figure 1: Methods to support patients in their spiritual growth.

Responses were numerous and varied greatly, some examples of responses for each of the categories is outlined in the table 1 below.

Cultivating Mind-Body Connection	Relational Healing	Nature Healing
Bodywork	Talking with patients about their spiritual practice	Plant-spirit healing
Craniosacral therapy	Encouraging them	Connecting to nature
Mindfulness/Meditation/ Prayer		Offering retreats
Yoga		Hiking in the woods

**Table 1:** Methods to support patients in their spiritual growth.

The 39 responses to the second open-ended question, “how would you assess a patient’s relationship with their spirituality”, were evenly split between directly asking, (43%) and inferring from other information (49%). Some methods of assessment included: Deep listening, discovering and using language to describe the transcendent that is preferred by the patient, using spirituality surveys, and asking about patient’s relationships with others.

## Hypothesis testing

Results showed a significant positive correlation of  $r=0.38$  ( $p<0.05$ ) between the DSES total mean score and a single-item, “How important is it to incorporate spirituality in patient interventions?” This indicated naturopathic medical students who reported higher levels of daily spiritual experience thought it was more important to incorporate spirituality into patient interventions. Scores on the self-transcendent subscale of the DSES were also significantly correlated with subjects’ ratings of, “How important is it to incorporate spirituality in patient interventions?”  $r=0.39$  ( $p<0.05$ ). Results indicated no relationship between the DSES theistic subscale and the item assessing, “How important is it to incorporate spirituality in patient interventions?” Correlational results indicated that neither the total DSES score, nor the theistic or self-transcendent subscale scores related to scores on the question, “How likely are you to ask about a patient’s spiritual health?”

## Discussion

These results indicate naturopathic medical students’ daily spiritual experiences related to the extent to which they felt it was important to incorporate spirituality into patient interventions. In addition, it appears that the students who reported higher levels of self-transcendent daily spiritual experiences were the most likely to report that they thought it was important to address spirituality in patient care. These results suggest that naturopathic medical students who experience a more frequent sense of connection with the transcendent are more likely to feel that it is important to incorporate spirituality in patient interventions. Most of the respondents also indicated they would assess a patient’s relationship with their spirituality by inferring it through other information, rather than using direct spirituality assessment methods.

## Limitations

There were several methodological limitations to this study. The limited number of naturopathic doctors in training who did return the survey is likely to be those who are particularly interested in spirituality, and therefore their responses may not be representative of naturopathic medicine trainees in general. In addition, while the items developed for this study do appear to have good face and content validity, it has yet to be widely tested. It should also be noted that while

no demographic information was collected, the group of naturopathic doctors in training at this university are mostly female. Research has shown that females and naturopathic doctors tend to rate themselves as more spiritual than other primary care practitioners [15,18]. As a result, the mean scores on the DSES are higher than those that might be expected for other samples.

## Future research directions

With the information derived from this pilot study, researchers could next design a quasi-experimental study including a larger group of medical students. Researchers could add a spirituality training component into one section of a course, and not another, and then ask students in each section to complete surveys before and after the course. This design would allow researchers to investigate if the perceived importance of incorporating spirituality into patient care and the methods for assessing and intervening about spiritual health were different before and after the course between students who received the training and those who did not. In undertaking research in this domain, it would be helpful to include a measure about the future provider’s own spirituality, as this study has shown personal experiences with the transcendent are related to how naturopathic medical students plan to intervene with future patients.

## Conclusion

For this group of naturopathic medical students, the daily experience of spirituality did appear to influence the extent to which they felt it was important to include spirituality as part of patient care. Interestingly though, their daily spiritual experience was not related to the likelihood that they would ask a patient directly about spiritual health. These results suggest that while future naturopathic practitioners see spirituality as important, there may be barriers to assessment and incorporation of spirituality in patient interventions.

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## Author Disclosure Statement

No competing financial interests exist.

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