Prediction of the Dimensions of the Spiritual Well-Being of Students at Kermanshah University of Medical Sciences, Iran: The Roles of Demographic Variables

ARASH ZIAPOUR1, ALIREZA KHATONY1, FARANAK JAFARI1, NEDA KIANIPOUR*

ABSTRACT
Introduction: Spiritual well-being is one of the aspects of well-being which organize the physical, psychological, and social aspects. Given the outstanding and unique roles of students in society, providing spiritual well-being as well as identifying and eliminating the negative factors affecting their mental well-being are of the essence.

Aim: The present study aimed to predict the dimensions of the spiritual well-being of students at Kermanshah University of Medical Sciences and to investigate the roles of demographic variables in this respect.

Materials and Methods: In this descriptive and correlational study, the statistical population was comprised of 346 doctoral students in the for-profit Schools of Medicine, Dentistry and Pharmaceuticals in Kermanshah University of Medical Sciences in 2016. For data collection, an instrument comprising the demographic questions and the 20-item spiritual well-being scale by Paloutzian and Ellison (1982) was utilized. To analyze data, the descriptive (frequency distribution, mean, and standard deviation) and inferential statistics (independent t-test, one-way ANOVA, and chi-squared test) were employed in the SPSS Statistics Software Version 21.0.

Results: The results of the present study demonstrated that the spiritual well-being of students was average (71.86±4.84), and of all demographic variables under study, only the variable of gender significantly correlated with the mean score of spiritual well-being. Also, the results revealed that the students’ score of religious well-being measured higher than that of their existential well-being. However, a significant correlation was found between spiritual well-being and its dimensions. Also, the religious and existential well-being were found to be significantly related (p<0.05).

Conclusion: The results of the present study showed the significance of addressing the issue of spirituality among the students of the for-profit Schools at Kermanshah University of Medical Sciences. Therefore, it is recommended that appropriate plans be laid by the culture and education policy makers to promote the spiritual well-being of university students.

Keywords: Demographic factors, Medical students, Spiritual health

INTRODUCTION
The spiritual well-being is considered one of the major dimensions of well-being in human beings [1]. As defined by Shabani the spiritual well-being is one’s ability to establish coordinated and harmonious relationships with God, oneself and others, as well as changing and adjusting one’s personal and social environment and resolving one’s personal and collective inclinations fairly, moderately and in a balanced manner [2]. The incorporation of spiritual well-being in the concept of well-being was suggested by Osman JD and Russell RD, which familiarized the experts in well-being with one of the major aspects of personal and group life [3]. In fact, the spiritual well-being, alongside other well-being aspects, is the latest dimension of well-being which coordinates the physical, psychological and social aspects [4]. The spiritual well-being is made up of two aspects: religious and existential. The former reflects one’s relationship with God or an infinite power, while the latter refers to one’s relationships with oneself, others and environment, which can be considered one’s ability to integrate various aspects of existence and to have different choices [5].

Without spiritual well-being, other aspects of well-being cannot function at maximum performance, and high levels of quality of life would not be possible [6]. Researchers believe that there is a phenomenal force in spiritual well-being that provides one with a kind of spiritual power assisting one in dealing with the hardships of daily life and lessening one’s worries and anxiety [7]. The results of similar studies indicate that spirituality can enhance one’s ability to confront problems and bring about physical and mental well-being [8].

The concept of spiritual well-being is related to all scopes of well-being in all ages and has been of interest to researchers worldwide [9]. One of the primary steps in spiritual care is to examine the students’ understanding of spirituality so as to make the necessary plans for educating students on spirituality [10], and given that they encounter a lot of daily stress, their physical and spiritual well-being fall victim to stress [11]. Since, they are responsible for providing and promoting public health in the future [12], they are expected to possess more mental health and self-reliance towards growing progression in their education and careers [13]. Hence, given the importance of spiritual well-being in students, the present study aimed to predict the dimensions of the spiritual well-being of students at Kermanshah University of Medical Sciences and to investigate the role of the demographic variables in this respect in 2016.

MATERIALS AND METHODS
In this descriptive and correlational study, the statistical population consisted of 346 doctoral students in the for-profit Schools of Medicine, Dentistry and Pharmaceuticals in Kermanshah University
of Medical Sciences, Iran in 2016. Additionally, given the availability of all students, the total population sampling was employed, and of the whole 370 distributed questionnaires, 24 incomplete questionnaires were excluded from the study (n=346). In addition, the inclusion criteria were being studying at the time of conducting the research, having the right to choose the courses freely, while the incomplete questionnaires were excluded from the study. Further, the participants were assured of the confidentiality of the collected information and lack of disclosure of their personal information. For data collection, an instrument comprising the demographic questions and the 20-item spiritual well-being scale (the Persian version) by Palouzian and Park [14] was utilized.

The first part of the instrument dealt with the demographics and was comprised of questions on gender, age, place of birth, marital status, housing, academic term, and field of study. The second part was the 20-item spiritual well-being scale developed by Palouzian RF and Park CL [14]. The scale incorporates two parts: religious and existential, with 10 questions in each part on six-point Likert scale, attracting a score in the range of 10 to 60. Also, for the positive questions, the numerical scoring scale run as follows: 1= strongly disagree, 2= disagree, 3= somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree. Conversely, for negative questions, the reverse scoring was employed as follows: 1= strongly agree, 2= agree, 3= somewhat agree, 4= somewhat disagree, 5=disagree, 6=strongly disagree.

Given the scores of the spiritual well-being scale, the respondents fell into three categories in terms of the spiritual well-being: low (a score of 20-40), average and under (a score of 41-70), average and above (a score of 71-99), and high (a score of 100-120). The reported Cronbach’s alphas of the religious and existential spiritual well-being and the whole scale were 0.91, 0.91, and 0.93, respectively [15]. Further, in a study performed by Mauk KL the reported Cronbach’s alphas of the religious and existential spiritual well-being and the spiritual well-being were 0.90, 0.93, and 0.97 [16] respectively. Having translated the original version of the scale into Persian, the content validity and reliability of the scale were determined (α=0.82) [17].

To commence the study, the required permission was obtained from the Vice Chancellor for the Department of Research and Technology at Kermanshah University of Medical Sciences. The informed consent and Institutional Ethical Clearance were obtained. Then, the questionnaires were distributed among the target sample. The objectives of the present study were explained to the target subjects, and they were assured that their information would be kept confidential.

**STATISTICAL ANALYSIS**

For data analysis, the descriptive (frequency distribution, mean, and standard deviation) and inferential statistics (independent t-test, one-way ANOVA, and chi-squared test) were employed in the SPSS Statistics Software Version 21.0.

To compare the mean scores of the spiritual well-being in terms of the two-faceted qualitative variables (e.g., gender and marital status), the independent t-test was utilized. Additionally, to compare the mean scores of the spiritual well-being in terms of the multi-faceted categorical variables (e.g., field of study) and the ordinal categorical variables (e.g., academic term), the one-way ANOVA was employed. The significance level was set at 0.05.

**RESULTS**

In the present study, of the whole 346 subjects under study, the male population accounted for 59.2% (205 subjects), and the rest (141 subjects or 40.8%) were female [Table/Fig-1]. Furthermore, in terms of the spiritual well-being, the results of the descriptive indexes revealed that the majority of the subjects (59.8%) fitted into the average and under category, and 35.3% belonged in the high category, and the lowest percentage (4.2%) fell into the low category.

The mean and standard deviation of the religious well-being of the subjects were 3.73±0.70, indicating an acceptable status. Similarly, the existential well-being had the same status with a mean and standard deviation of 3.46±0.48. In addition, the results of the present study indicated that the mean score of spiritual well-being was higher among females than males. The independent t-test did not show a meaningful difference between the mean score of spiritual well-being and gender.

The results of the present study revealed that the mean score of the spiritual well-being of students at Kermanshah University of Medical Sciences measured 71.86±4.84, an indication that the level of the spiritual well-being was average. The mean and standard deviation of spiritual well-being was 3.70±0.15 among the married university students as opposed to 3.63±0.38 among the single ones. The independent t-test also did not show a significant difference between the mean scores of spiritual well-being and marital status (p<0.05).

Besides, in terms of spiritual well-being, the medical and pharmaceutical students had the highest and the lowest levels of the mean and standard deviation, respectively. The one-way ANOVA test showed a significant difference between the mean scores of spiritual health in different fields of study (p<0.05).

The mean and standard deviation of spiritual well-being measured 3.60±0.58 and 3.59±0.22 in the age groups under 20 and over 21 years of age, respectively. However, the independent t-test did not show any significant difference between the mean scores of spiritual well-being in both age ranges (p<0.05).

Also, the highest and lowest means and standard deviations of spiritual well-being were found among the students studying in the second (3.71±0.45) and fourth academic terms (3.60±0.23), respectively. Further, the one-way ANOVA test displayed no significant difference between the mean scores of spiritual well-being and marital status (p<0.05).

The results of comparison obtained by university students in terms of demographic variables (gender, age, marital status, housing, academic term, and field of study) and spiritual well-being are shown in [Table/Fig-2].

To investigate the statistical correlations between the religious and...
DISCUSSION

The present study aimed to predict the dimensions of the spiritual well-being of students at Kermanshah University of Medical Sciences and to investigate the role of demographic variables. The results of the present study revealed that the mean score of the spiritual well-being of students at Kermanshah University of Medical Sciences measured 71.86±4.84, an indication that the level of the spiritual well-being was average. This result was inconsistent with the results of the study conducted by Alahbakhshian M et al., in which the subjects possessed high levels of spiritual well-being (97.9%), and no relationship was found between gender and spiritual well-being [6]. However, the mean score of the religious well-being was higher than that of the existential well-being, which was consistent with the results of the present study. Additionally, in a study undertaken by Chavoshi SA et al., on the nurses in Hamedan Province, Iran, the mean score of the spiritual well-being measured 74.4%, and the mean score of the religious well-being was higher than that of the existential well-being, which was concurrent with the results of the present study [18]. However, the results of a study done by Alahbakhshian M et al., showed that the mean score of the existential well-being was higher than that of the religious well-being, which was inconsistent with the results of the present study [6]. One possible cause is the difference in samples. For example, the present work studied the university students, whereas the study conducted by Alahbakhshian M et al., was about patients suffering from multiple sclerosis [6]. In a study performed by Hsiao YC et al., the results indicated that the spiritual well-being of Taiwanese nursing students was average [19]. Safayi E et al., showed that the mean score of the spiritual well-being of university students measured 89.18±17.14 [20], which was at a higher level than the present study (71.86±4.84), and both studies were within an average range. In a study done by Assarroudi A et al., the results demonstrated that the spiritual well-being of nurses stood at 94.13 [21], which was higher than that in the present study. Not to mention, such results were expected in the Iranian society in which its citizens were inclined to religion and spiritual values. So, the religious atmosphere in Iran might affect how the respondents answered the questions. Therefore, the higher one's religious well-being, the higher the existential well-being will be.

Moreover, the results of the present study indicated that the level of the spiritual well-being of female students was higher than that of male students. This result was significantly different from the results of studies conducted by Mansor N and Khalid NS, Jafari E et al., Mousavi Moghadam SR et al., [17,22,23]. However, in studies done by Alahbakhshian M et al., and Assarroudi A et al., it was shown that the variable of gender did not influence the spiritual well-being. In the Iranian society [6,21], these results may be due to different

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Religious Well-being</th>
<th>Existential Well-being</th>
<th>Spiritual Well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean(SD)</td>
<td>Mean(SD)</td>
<td>Mean(SD)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3.65 (0.43)</td>
<td>3.55 (0.56)</td>
<td>3.54 (0.4-4)</td>
</tr>
<tr>
<td>Female</td>
<td>3.79 (0.83)</td>
<td>3.53 (0.42)</td>
<td>3.63 (0.48)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.47</td>
<td>0.693</td>
<td>0.112</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>3.72 (0.71)</td>
<td>3.55 (0.05)</td>
<td>3.63 (0.38)</td>
</tr>
<tr>
<td>Married</td>
<td>3.95 (0.36)</td>
<td>3.45 (0.49)</td>
<td>3.70 (0.15)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.32</td>
<td>0.002</td>
<td>0.498</td>
</tr>
<tr>
<td>Place of Birth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>3.74 (0.74)</td>
<td>3.54 (0.49)</td>
<td>3.64 (0.40)</td>
</tr>
<tr>
<td>Countryside</td>
<td>3.79 (0.31)</td>
<td>3.36 (0.39)</td>
<td>3.57 (0.18)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.669</td>
<td>0.021</td>
<td>0.396</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20s</td>
<td>3.74 (0.86)</td>
<td>3.55 (0.55)</td>
<td>3.64 (0.43)</td>
</tr>
<tr>
<td>21s</td>
<td>3.71 (0.35)</td>
<td>3.52 (0.35)</td>
<td>3.61 (0.26)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.645</td>
<td>0.580</td>
<td>0.492</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hall of Residence</td>
<td>3.78 (0.25)</td>
<td>3.30 (0.38)</td>
<td>3.54 (0.21)</td>
</tr>
<tr>
<td>Rental</td>
<td>3.81 (0.39)</td>
<td>3.35 (0.47)</td>
<td>3.58 (0.26)</td>
</tr>
<tr>
<td>Private Property</td>
<td>3.67 (0.91)</td>
<td>3.71 (0.45)</td>
<td>3.69 (0.46)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.245</td>
<td>&lt;0.0001</td>
<td>0.128</td>
</tr>
<tr>
<td>Academic Term</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st</td>
<td>3.82 (0.80)</td>
<td>3.46 (0.49)</td>
<td>3.64 (0.42)</td>
</tr>
<tr>
<td>2nd</td>
<td>3.85 (0.90)</td>
<td>3.57 (0.46)</td>
<td>3.71 (0.45)</td>
</tr>
<tr>
<td>3rd</td>
<td>3.65 (0.63)</td>
<td>3.58 (0.49)</td>
<td>3.62 (0.32)</td>
</tr>
<tr>
<td>4th</td>
<td>3.64 (0.43)</td>
<td>3.56 (0.46)</td>
<td>3.60 (0.23)</td>
</tr>
<tr>
<td>5th</td>
<td>3.64 (0.72)</td>
<td>3.58 (0.48)</td>
<td>3.61 (0.38)</td>
</tr>
<tr>
<td>6th</td>
<td>3.88 (0.80)</td>
<td>3.45 (0.51)</td>
<td>3.66 (0.46)</td>
</tr>
<tr>
<td>7th</td>
<td>3.67 (0.64)</td>
<td>3.55 (0.48)</td>
<td>3.61 (0.37)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.352</td>
<td>0.643</td>
<td>0.855</td>
</tr>
<tr>
<td>Field of Study</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>3.84 (0.77)</td>
<td>3.50 (0.44)</td>
<td>3.67 (0.43)</td>
</tr>
<tr>
<td>Dentistry</td>
<td>3.64 (0.64)</td>
<td>3.56 (0.51)</td>
<td>3.60 (0.27)</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>3.65 (0.63)</td>
<td>3.55 (0.52)</td>
<td>3.60 (0.37)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.39</td>
<td>0.595</td>
<td>0.232</td>
</tr>
</tbody>
</table>
social customs, life experiences, coping strategies, the various roles and characteristics of women, and their greater consistency with the spiritual principles. Additionally, from the viewpoint of Levin JS et al., there is the possibility that the roles, characteristics and behaviors that are socially attributed to women be more consistent with some of the religious and spiritual principles and norms [24].

In the present study, the mean scores of spiritual well-being were significantly different in various ages. In other words, with the increase of age, the students’ spiritual well-being would grow. This result was concurrent with the results of studies undertaken by Najarkolaei F et al., and Fisher JW et al., [25,26]. It is believed that inclination towards spirituality had a direct relationship with aging whereby one encounters the reality of death and gets adapted to it [27,28].

The results of the study performed by Hsiao YC et al., showed that personality, age, ethnicity, family and various prayers were good predictors of spiritual well-being, and spirituality resulted in physical and mental well-being [19].

In the present study, the levels of spiritual well-being were not significantly different in terms of marital status. This result was consistent with the results of studies conducted by Papazisis G et al., and Hsiao YC et al., [15,19]. However, this finding was inconsistent with the results of studies undertaken by Najarkolaei F et al., and Riley BB et al., [25,29]. In that there was a significant relationship between the marital status of the respondents and their spiritual well-being.

Furthermore, there was no significant difference between the mean scores of spiritual well-being in different fields of study and academic terms. This finding was concurrent with the results of studies performed by Farahaninia M et al., Rahimi N et al., Taliaferro LA et al., [30-32] because no significant relationship was reported between the spiritual well-being and each of the demographic variables of age, marital status, and academic terms. Similarly, this finding was consistent with the results of a study done by Mostafazadeh F et al., in which there was no significant difference between the levels of the spiritual well-being of nurses in the first and fourth years, and the level of their spiritual well-being was average [33].

LIMITATION
The present study had some limitations. First, the data were collected through a self-reporting method, possibly affecting the accuracy of the results. Second, because the sample consisted of doctoral students in the for-profit Schools of Medicine, Dentistry and Pharmaceuticals in Kermanshah University of Medical Sciences, the results could not be generalized to students in other medical schools. Finally, it is suggested that further studies be conducted in this respect to draw comparisons towards reaching a consensus on this matter.

CONCLUSION
The results of the present study showed that the spiritual well-being of university students was average. In addition, given the dominant religious culture and beliefs of people in the Iranian society, the role of religion is considered a source of compatibility. So, it is suggested that the policymakers engaged in educational and cultural affairs take appropriate measures to promote spiritual well-being of their students.

ACKNOWLEDGEMENTS
The authors hereby bestow their gratitude to the doctoral students in the for-profit Schools of Medicine, Dentistry and Pharmaceuticals in Kermanshah University of Medical Sciences for their participation in the present study.

REFERENCES
PARTICULARS OF CONTRIBUTORS:
1. Faculty, Research Center for Environmental Determinants of Health (RCEDH), Kermanshah University of Medical Sciences, Kermanshah, Iran.
2. Associate Professor, Clinical Research Development Unit, Imam Reza Hospital (AS), Kermanshah, Iran.
3. Associate Professor, Clinical Research Development Unit, Imam Reza Hospital (AS), Kermanshah University of Medical Sciences, Kermanshah, Iran.
4. Faculty, Engineering Students Research Committee, Kermanshah University of Medical Sciences, Kermanshah, Iran.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Alireza Khatony,
Associate Professor, Clinical Research Development Unit, Imam Reza Hospital (AS), Kermanshah-6714415333, Iran.
E-mail: akhatony@gmail.com

FINANCIAL OR OTHER COMPETING INTERESTS: None.