The Relationship of Spiritual Intelligence and Religious activities with happiness of midwives working in hospitals and health centers

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ABSTRACT

Background & aim: Happiness is one of the most important human needs that play an influential role in the health of the individuals and society. In the recent years, the role of spirituality and religion as important aspects of life has been considered in the health-related issues. The physical and mental health of the midwives plays a significant role in the quality of patient care. In this regard the current study was designed to investigate the relationship of spiritual intelligence and religious activities with happiness among midwives working in hospitals and health centers.

Methods: This descriptive cross-sectional study was conducted on 232 midwives working in the maternity hospitals and health centers affiliated to the Mashhad University of Medical Sciences, Mashhad, Iran, in 2015. The study sample was selected through cluster random sampling technique. The data were collected by the demographic and occupational characteristics questionnaire, life style questionnaire, Spiritual Intelligence Scale, and Oxford Happiness Questionnaire. Data analysis was performed using the descriptive statistics, Spearman's rank correlation coefficient, Mann-Whitney U test, Kruskal-Wallis test, and multiple regression using SPSS, version 16.

Results: According to the results, spiritual intelligence was directly correlated with happiness (r=0.63, P<0.0001) and religious activities (r=0.36, P<0.0001). In addition, there was a significant relationship between religious activities and happiness (r=0.29, P<0.0001).

Conclusion: The findings revealed that happiness had a significant relationship with spiritual intelligence and religious activities. Therefore, we could improve happiness among the midwives by holding training and retraining courses with the purpose of involving in religious activities and promoting spiritual intelligence.

Key words: Happiness, Religious activities, Spiritual intelligence, Midwives

Introduction

Health system is intended to provide physical, psychological, and social health and create the atmosphere, which provides the employed manpower with higher quality and more effective activities (1). Midwifery is a profession that involves tension and stressful conditions due to such factors as responsibility for the patients’ life and death, long working hours, clinical process, emergencies and unpredictable situations, disproportionate wages for individuals, and workload pressure (2). The midwife’s health affects the quality of patient care. Accordingly, the physically and psychologically healthy manpower would act more efficiently and committedly in an organization (3).

The individuals’ psychological health has been always focused due to its considerable impact on personal aspects and different behaviors. Positive emotions, such as happiness,
have been noticed from the ancient time (4). Positive psychology is a new movement in psychology, which involves the scientific study of the people’s strengths and virtues that make them able to grow. This science focuses on fostering high level of happiness regardless of individuals’ conditions (5).

This viewpoint has a great impact on positive performance, and it seems it has inclusively focused on some topics, such as happiness and peace (6). The positive psychology has its roots on Seligman research, who remarks that happiness includes enjoyable, committed, and meaningful life. The experience of positive excitement, on which positive psychology emphasizes, often empowers adaptability and resilience in encountering with troubles (7).

Vitality or happiness is one of the most important spiritual, psychological, and innate needs of the human, which plays an influential role in many vital aspects of life. As a positive emotion, vitality has a decisive impact on the health of the individual and community (8). Happiness is one of the mental health benchmarks and among the six basic human excitements (i.e., anger, hatred, fear, wonder, sorrow, and happiness). This positive excitement is one of the stable, pleasant, and personal features of human (9).

Azerbaijani, quoting Aristotle, introduces three types of happiness. According to Aristotle, happiness is considered as enjoyment and achievement at the lowest and highest levels, respectively. He argued that the third type of happiness is the one derived from spirituality. Aristotle believed that true happiness is derived from the manifestation of virtue rather than the satisfaction of desires (10).

Positive psychology has progressed over time and obtained extensive applications in a way that new area for positivism has been recently appeared (1). Positive excitements have some relationships with the occupational behaviors associated with performance, such as creativity, effective participation in decisions, and social behaviors (11).

Spirituality as one of the important aspect of humanitarian actions, which bears a lasting association with health and well-being, has been focused in the recent years (12). The World Health Organization has recently described the human as a biological, psychological, social, and spiritual creature (13). Although spirituality has some similarities with religion, it contains a wider concept of religion (14).

Pidmont defines spiritual intelligence as the inner core, which can provide peace, particularly in stressful situations, and connect human to a superior force in the world (15). Spiritual intelligence is the foundation of humans’ beliefs, which affects their performance and increases their flexibility in troubles (16). Health outcomes, such as quality of life as well as psychological, biological, and social performances, are mostly influenced by both spiritual intelligence and religion (17).

One of the effective associations, which can keep human in contact with the external environment, is the relationship with the Lord of the Worlds. Reciting Quran and prayers, when done knowingly and wholeheartedly, connects the human heart to the infinite force of the Creator and provides them with peace, and thereby improves psychological disturbances (18).

Being away from genuine religious beliefs paves the way for the emergence of mental troubles in the person who is afflicted with inner conflicts and feelings of emptiness, despair, and frustration (19). Therefore, religion and religious beliefs are considered as important and effective factors in mental health since they affect one’s cognition and behavior (20). It seems that when the people with spiritual tendency face troubles, they show better reaction, handle the pressure in a more suitable way, and feel less depressed (21).

According to some studies, there is a meaningful relationship between religious beliefs, happiness, and psychological well-being. However, the strength of this relationship has been reported to be medium to weak. In addition, this meaningful relationship between spirituality and happiness has not been confirmed in all studies (9). According to the literature, religion and religious beliefs play an effective role in the promotion of mental health. In a meta-analysis reviewing 24 articles, Burgin et.al (2008) observed a positive relationship between religion and mental health (22).

In a study conducted by Abdel-Khalek (2006) on 2,210 Muslim Kuwaiti students, there was a
direct relationship between happiness and religion (23). Furthermore, Maltby et al. (1999) and Francis et al. (2000) investigated the youths by using Oxford Happiness Scale and reported a significant relationship between the religious view and happiness (24). Additionally, Yang demonstrated that religious beliefs had strong relationship with spiritual intelligence in the nurses (17).

Raisi et al. (2013) investigated the relationship between spiritual intelligence, happiness, and educational achievement among the students of Qom university of Medical Sciences, Qom, Iran. They concluded that higher spiritual intelligence was accompanied with higher happiness and educational achievement (4). Considering the descriptions and applications of spiritual intelligence, it is likely that spiritual intelligence influences the individuals’ physical and psychological health. Moreover, this intelligence helps the people to be stable, decrease their anxiety, and establish deeper relationships with others (25).

Mental health is an important issue in one’s occupation or profession (26). Today, the progress of organizations depends on the optimal use of their human resources. Therefore, the management and consideration of employee’s needs or troubles and job atmosphere are the effective strategies for the improvement of organizational achievements. Accordingly, employees’ mental health is another effective factor that should be attended to in this field (27).

Midwifery is considered as one of the important majors, which involves the provision of maternal and neonatal health and promotion of the mental health of community. The mental health of the midwives has great influence on their performance and is associated with the maternal and neonatal health as two sensitive groups (1).

To the best of our knowledge, there is no study examining the relationship between spiritual intelligence, religious activities, and happiness among the midwives. Therefore, the present study was conducted with the aim of investigating the association between these variables.

**Materials and Methods**

This descriptive cross-sectional study was conducted on the midwives working at the health centers and maternity hospitals affiliated to the Mashhad University of Medical Sciences, Mashhad, Iran (i.e., Qaem, Imam Reza, Shahid Hashemi Nejad, Omolbanin), in 2015. The maternity hospitals and health centers were chosen as research contexts since the midwives usually work in these places. The sampling was performed using simple random and cluster sampling techniques for the hospital and health centers, respectively.

After visiting the related hospitals and having access to the accurate number of midwives, the samples were chosen randomly. Therefore, the list of the midwives was separately provided in each of the maternity hospitals. Then, according to the sample size in each maternity hospital, the subjects were selected by drawing lots to obtain the intended number. For the selection of the samples in the health centers, five health centers in Mashhad were considered as categories, and the lists of the centers covered by these centers were determined.

Subsequently, the subsidiary centers were divided into two categories of small and big (according to the covered population). Based on the number of the midwives in these centers, the subjects were chose using simple random sampling method, and if the number of midwives was limited, all people were selected. In the preliminary study, the sample size was determined as 232 midwives using the correlation formula with the power of 80% and confident coefficient of 95%. Therefore, 137 and 95 midwives were selected from the health centers and hospitals (proportional to sample size of each category), respectively, in proportion to the sample size.

The inclusion criteria were: 1) a minimum of associate degree in midwifery, 2) occupational experience of six months in the current section, 3) no referral to a psychologist or psychiatrist, 4) non-consumption of drugs, 5) hospitalization for psychological reasons over the past year, and 6) lack of major stress (e.g., infliction of the midwives or their husbands and children with serious diseases, death of a family member, migration, accident, sharp family disagreement) over the past six months.
Therefore, the eligible midwives were entered to the study after being informed. In this study, data collection tools included demographic and occupational characteristics form, life style questionnaire, Spiritual Intelligence Scale (SIS) developed by Badie et al. (2010), and Oxford Happiness Questionnaire.

The SIS was made and validated by Badie et al. (2010) in Iran (28). This scale contains 49 items in four subscales, which are rated on a five-point Likert scale (i.e., strongly agree=5, agree=4, undecided=3, disagree=2, and strongly disagree=1). In this instrument, according to the concept of questions and their negative load, some of the items of the second subscale are reversely scored.

The subscales of the SIS include general thinking and believing (19 items), ability to deal with problems (15 items), ethical issues (8 items), as well as self-awareness and love (7 items), respectively. The total score is obtained by summing up the score of the four subscales. The scores are classified into three categories, namely poor (49-114), average (115-180), and strong (181-246) (28). The estimation of the concurrent validity of this tool revealed a significantly direct relationship between the instruments (r=0.55, P<0.001).

The reliability of this scale has been confirmed by using Cronbach’s alpha coefficient and split-half method, rendering reliability coefficients of 0.85 and 0.78, respectively (28). The reliability of this questionnaire was also evaluated in the current study, showing a Cronbach’s alpha of 0.88.

The hours devoted to religious activities were estimated by asking “How many minutes a day do you devote to saying prayers, reading Quran, and participating in religious programs?” This question was included in the lifestyle section. The range of the time spent on religious activities was 0-360 min. Based on the minimum and maximum time devoted to religious activities, it was divided into three equal levels (i.e., 0-120 min: low, 121-240 min: medium, 241-360 min: high).

The Oxford Happiness Questionnaire contains 29 items, rated on a six-point Likert scale (i.e., strongly disagree=1, moderately disagree=2, slightly disagree=3, slightly agree=4, moderately agree=5, and strongly agree=6). This instrument measures six subscales, namely self-esteem, satisfaction, efficiency, positive mood, control, mental health. The score range of this questionnaire is 29-174, divided into low (<100), medium (101-131), and high (>132) happiness level (29).

The validity of this questionnaire has been confirmed in different studies. Accordingly, the validity of the translated version of this tool was determined by Hadi Nejad (1385) using face and content validities (30). Furthermore, the reliability of this research instrument was estimated by Alipoor and Noorbala, reporting a Cronbach’s alpha coefficient of 0.98. In the present study, the reliability of this questionnaire was confirmed by obtaining a Cronbach’s alpha coefficient of 0.876.

**Statistical analysis**

The demographic data were analyzed through descriptive statistics. After controlling for the normality of the data, Spearman’s correlation coefficient was used to determine the relationship between spiritual intelligence, religious activities, and happiness. The Mann-Whitney U and Kruskal-Wallis tests were employed to determine the relationship between the mean happiness and the levels of spiritual intelligence and religious activities.

In addition, the relationship between demographic variables and main variables (i.e., spiritual intelligence and religious activities as the independent variables and happiness as the dependent variable) was evaluated using the multiple regression. Data analysis was performed in SPSS (version 16). P-value less than 0.5 was considered statistically significant.

**Results**

The mean age of the participants was 35.0±8.9 years (age range: 23-54 years). The majority of the participants were married (75%) and had bachelor’s degree (91.8%) and sufficient income level (85.8%) (Table 1). Furthermore, most of the midwives had strong spiritual intelligence (67.2%), high happiness level (48.7%), and low religious activities.
Relationship of Spiritual Intelligence and Religious activities with happiness


Table 2. Frequency distribution of spiritual intelligence, religious activities, and happiness among the study participants

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>54 (23.3)</td>
</tr>
<tr>
<td>Married</td>
<td>174 (75.0)</td>
</tr>
<tr>
<td>Widow</td>
<td>1 (0.4)</td>
</tr>
<tr>
<td>Divorce</td>
<td>3 (1.3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Academic Degrees</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate</td>
<td>18 (7.8)</td>
</tr>
<tr>
<td>Bachelor</td>
<td>213 (91.8)</td>
</tr>
<tr>
<td>Master and higher</td>
<td>1 (0.4)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of income</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient income</td>
<td>199 (85.8)</td>
</tr>
<tr>
<td>Low income level</td>
<td>17 (7.3)</td>
</tr>
<tr>
<td>High income level</td>
<td>16 (6.9)</td>
</tr>
<tr>
<td>Total</td>
<td>232 (100.0)</td>
</tr>
</tbody>
</table>

Table 3. Mean and standard deviation of happiness according to the levels of religious activities in midwives working at maternity hospital and health centers

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean±SD</th>
<th>Low</th>
<th>Intermediate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happiness</td>
<td>129.4±20.7</td>
<td>155.0±18.4</td>
<td>164.0±11.3</td>
<td>129.9±21.0</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>228</td>
<td>2</td>
<td>2</td>
<td>232</td>
<td></td>
</tr>
<tr>
<td>Test result (P)</td>
<td>$X^2=7.72$</td>
<td>Df=2</td>
<td>P=0.021</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Effect of spiritual intelligence on happiness by controlled intervening variables in midwives working at maternity hospitals and health centers

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>t</th>
<th>P-value</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual intelligence</td>
<td>0.702</td>
<td>12.335</td>
<td>0.001</td>
<td>0.057</td>
</tr>
<tr>
<td>Age</td>
<td>-0.290</td>
<td>-2.220</td>
<td>0.027</td>
<td>0.13</td>
</tr>
<tr>
<td>Associate</td>
<td>26.338</td>
<td>1.572</td>
<td>0.117</td>
<td>16.753</td>
</tr>
<tr>
<td>Bachelor</td>
<td>23.175</td>
<td>1.409</td>
<td>0.160</td>
<td>16.445</td>
</tr>
<tr>
<td>Master and higher</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Efficient income</td>
<td>-2.642</td>
<td>-0.603</td>
<td>0.547</td>
<td>4.380</td>
</tr>
<tr>
<td>Low income level</td>
<td>-8.901</td>
<td>-1.502</td>
<td>0.135</td>
<td>5.927</td>
</tr>
<tr>
<td>High income level</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Single</td>
<td>0.429</td>
<td>0.43</td>
<td>0.966</td>
<td>10.028</td>
</tr>
<tr>
<td>Married</td>
<td>1.934</td>
<td>0.198</td>
<td>0.844</td>
<td>9.786</td>
</tr>
<tr>
<td>Widow</td>
<td>-10.131</td>
<td>-0.520</td>
<td>0.603</td>
<td>19.468</td>
</tr>
<tr>
<td>Divorce $\alpha$</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

$\alpha$ was considered as the basis.

(98.3%) (Table 2). The mean scores of spiritual intelligence and happiness were 188.6±19.7 and 129.9±21.0, respectively (score ranges of 143-235 and 49-172, respectively). In addition, the mean score of religious activities was (in terms of devoted time for doing religious activities in a day) 47.4±39.8 min, (range: 0-360 min).

According to the results of the Spearman's rank correlation, happiness demonstrated a significant linear relationship with spiritual intelligence and religious activities ($r=63\%, P<0.001$ and $r=287\%, P<0.001$, respectively). Moreover, according to the Mann Whitney U test, the participants with high spiritual intelligence had higher mean happiness scores than those with medium spiritual intelligence ($P<0.001$) (Table 3).

Likewise, the midwives with high religious activities had higher mean happiness scores, compared to the other groups. In addition, the results of Kruskal-Wallis test revealed that the mean happiness scores were significantly different in terms of the various levels of religious activities ($P=0.021$) (Table 4). Furthermore, there was a significant relationship between spiritual intelligence and the devoted hours for religious activities ($r=0.359, P<0.001$).

In order to control the effective variables (i.e., age, income, academic degree, and marital status), they were entered into linear regression...
model. To this aim, the effective variables in spiritual intelligence were entered into the model as independent variables, and happiness was added as the dependent variable. The simultaneous investigation of the intervening variables in the relationship of spiritual intelligence with happiness by general linear model indicated a significant relationship between these variables and happiness ($r=0.405$, $P<0.001$, $F=18.50$, $df=9$).

In addition, among these variables in the regression model, the age ($P=0.027$) and spiritual intelligence ($P<0.001$) had a significant linear relationship with happiness (Table 5). Nevertheless, the regression test demonstrated that none of the mentioned variables had a significant relationship with happiness in doing religious activities ($P=0.856$).

**Discussion**

This study aimed to determine the relationship of spiritual intelligence and religious activities with happiness among the midwives as an attempt for moving toward the establishment of positive state of mind. The results of the study revealed that most of the midwives participated in this study had medium to high spiritual intelligence. Such results are not unlikely, since we live in a society which is religious and oriented toward spiritual values. Moreover, the religious atmosphere in Iran might be effective in people’s responses to questions.

The results of this study were in line with those reported by Karimi Moonghi et al. (2011) (31) and Nouhi et al. (2014) investigating spiritual intelligence among the nurses and nursing/midwifery students, respectively (32). However, our results were inconsistent with those obtained by Haghshenas et al. (2016), focusing on the relationship between spiritual intelligence and interest styles among the female students of different majors studying at Payame Noor University of Isfahan, North Khorasan Province, Iran. In the mentioned study, most of the participants had the spiritual intelligence of lower than medium or low level (33).

Yang et.al (2007) investigated the spiritual intelligence among the nurses in China. Out of the 117 subjects investigated in the mentioned study, 82.9% and 17.1% of them had low and medium spiritual intelligence, respectively, and no case was reported to have high spiritual intelligence (34). These findings are in disagreement with our results. However, this discrepancy could be due to the diversity of population and tools measuring spiritual intelligence.

In this study, the level of happiness was medium to high in most of the midwives (92.2%), which was not in line with the results obtained by Hadizade et al. and Yang et al. (1, 34). In the study of Hadizade et al., 63.3% of the midwives had the medium to low level of happiness. This difference could be derived from the difference in sample size (Hadizade et al. investigated the happiness on 90 midwives in the maternity hospital), target society, as well as social and cultural conditions (the study of Yang et al. was conducted on Taiwanese nurses).

In the current study, there was a significant relationship between happiness and age, which was in incongruence with the results presented by Hadizade et al. (3) and Babolhavayehji (2012) (35). The results of the Spearman correlation indicated a significant relationship between spiritual intelligence and happiness among the midwives, which is in line with the findings obtained by Yaghoobi et al., who concluded that the improvement of spiritual intelligence would result in the enhancement of happiness (36).

The results of the Mann Whitney U test indicated that the people with high spiritual intelligence had higher mean happiness scores. These findings were consistent with those reported by some studies, such as the study of Azarbeyejani et al. indicating that happiness becomes deeper and more stable along with the orientation of material matters to spiritual ones (10).

In order to explain the relationship between spiritual intelligence and happiness, by referring to the noble verse saying "Unquestionably, by the remembrance of Allah, hearts are assured" (Surah Ar-Ra’d, verse 28), it could be remarked that one of the results of believing in God and acting on this faith is the inner peace and vitality (10). Allah in Quran introduced the remembrance of God, among the waves of worries and anxieties, as the best medication for relaxing the mind and healing the heart (37).
practical strategies and recommendations in confronting psychological troubles to keep his creations away from stress. These recommendations include prayers (Surah Al-Baqarah, verses 45, 153), repentance and remembrance of Allah (Surah Ar-Ra'd, verses 70, 71), participation in religious ceremonies, and practical obligation to religious rules. Generally, Quran invites man to peace (Surah Ibrahim, verse 45; At-Tawbah, verse 103; Al-Fath, verse 4) (9).

The results of the Spearman correlation indicated a significant relationship between religious activities and happiness. This result was in line with some studies; in this regard, Pollner (1989) found out that fixed social support, feeling close to God, and having friendly image of God were associated with happiness (38). Ellison (1991) expressed that after the continuity of social life, firm faith resulted in pleasure (39).

Furthermore, Genia (1996) demonstrated that spiritual health was correlated with inner tendency to religion. Serious commitment to religion could be considered as the final goal itself, and goals in life have been reported to be positively correlated with pleasure (40). In a study conducted by Hay (1982), 61% of the people participating in religious ceremonies felt calm and happy (41).

According to the results of Kruskal-Wallis test, there was a significant relationship between the time devoted to religious activities and happiness. In other words, longer religious activities led to higher happiness scores, and the mean time devoted to religious activities in people with high happiness scores was longer than that in the individuals with lower happiness scores. These results are consistent with those presented by Najafi Sani (2013), focusing on the relationship among fondness to Quran, religious activities, and happiness in pregnant women.

In the mentioned study, it was concluded that longer fondness to Quran resulted in higher happiness level (9). In order to explain this finding, it could be mentioned that spiritual experiences have some functions, which create final happiness in people. Belief in God, who controls situations and monitors his creatures, leads to some feeling of supporting and results in happiness (42).

The strength of this study was the random selection of the study population. One of the limitations of this research was that since in our society, the attention to religion and Quran is considered as a value, some respondents probably filled out the questionnaires by concerning this value, even though they did not believe in it wholeheartedly. In addition, other intelligences, such as general intelligence and particularly emotional intelligence, are influential in spiritual intelligence; however, they were not controlled in this study. Furthermore, it is obvious that each studied variable is associated with many factors, which were not possible to be considered.

**Conclusion**

As the findings of the present study indicated, there was a significant relationship between spiritual intelligence, religious activities, and happiness among the midwives. Given the important role of the psychological health of the midwives in care delivery to two vulnerable groups of society, namely mothers and neonates, the improvement of happiness among the midwives is a matter of significant importance.

This is due to the fact that happiness, as the main aspect of mental health, leads to better job performance and health system productivity. It is possible to improve the happiness in midwives by the implementation of training and retraining sessions for the promotion of spiritual intelligence in midwives, which results in the improvement of the quality of the activities.

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**Conflicts of interest**

The authors declare no conflicts of interest.

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