Investigation Clinical Competence and Its Relationship with Professional Ethics and Spiritual Health in Nurses

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Abstract

**Background and Objectives:** Study of clinical competence in nursing helps determine the quality of health care delivered to patients. Given the priority of observance of principles over caretaking and necessity of spirituality existence at the core of health care provision, this study was conducted to investigate clinical competence and its relationship with professional ethics and spiritual health in nurses.

**Methods:** In this cross-sectional, descriptive, and correlational study, 281 nurses were enrolled by consensus sampling. Sampling was conducted from February, 2016 till June, 2016. The data were gathered by a demographics questionnaire, a self-assessment scale of clinical competence, a nursing ethics questionnaire, and a spiritual health questionnaire, and analyzed by descriptive statistics and t-test, Pearson's correlation coefficient, ANOVA, and linear regression analysis in SPSS 21.

**Results:** The total scores for self-assessment scale of nurses' clinical competence, professional ethics, and spiritual health were moderate. In the light of the results of Spearman's correlation coefficient, there was a significant and positive correlation between clinical competence and spiritual health. Moreover, a significant positive correlation was observed between professional ethics and spiritual health but there was no correlation between professional ethics and clinical competence.

**Conclusion:** Managers' and personnel's Knowledge about the level of nurses clinical competence, professional ethics, and spiritual health in teaching health care centers provides valuable information to develop in-service and efficacious education programs and ultimately to improve the quality of nursing services.

**Keywords:** Clinical Competence, Nurses, Professional Ethics, Spiritual Health.

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Introduction

Maintaining and promoting clinical competence has always been one of the most important challenges facing nursing profession. Clinical competence refers to the ability to perform tasks with favorable outcomes and use information and skills effectively as well as what nurses should be able to do (1,2). According to nursing association national commission, cited by Jaffari Golestan et al., clinical competence refers to use of knowledge in decision making, psychomotor skills, and interpersonal relationships, and nursing role is expected to help ultimately achieve security, knowledge, and public health (3). According to the American Nurses Association, the process of determining qualifications and the rate of achieving them in nursing practice is a part of accreditation including granting a valid document as a permission to begin work such as a bachelor's degree in nursing, gaining formal license, and evaluating the minimal standards in nursing education programs (4).

Clinical competence in nursing is considered to be an effective factor to guarantee quality of care delivered to patients and to gain their satisfaction as well as a key factor for hospitals survival in today's highly competitive world (5-8). Lack of sufficient clinical competence in nurses as the members of health care team leads
to unpleasant outcomes for clients. For example, the Joint Commission: Accreditation, Health, Care, Certification in 2002 reviewed the causes of 1609 in-hospital deaths and injuries and reported low clinical competence in nursing staff a contributing factor in 24% of the cases (9). Nurses' practices and competences may be included in clinical practice and considered independent of ethics, while ethics and clinical competence in practice are not separated (8,9). Lemonid, cited by Hasanpoor et al., argues that ethical commitment is an important obligation in nursing practice during nurse-patient relationships, and observance of ethical principles is a priority to caretaking in delivering health care services to patients (10). However, according to the available evidence, professional ethics is not being observed in Iran as the patients and culture of this country deserve, and has been partly neglected (11).

A comparative study on nurses' perceptions of ethical issues in China and Switzerland demonstrated some differences in certain culture- and faith-based ethical concepts. Moreover, Chinese nurses were more nervous, dissatisfied, and sad during or after working, but both groups reported heavy workload to be the cause of ethical problems related to communication with the patients (12,13). All obstacles that may somehow challenge the observance of the standards for professional ethics by nurses in caring for the patients must be removed so that caretaking of the patients can be conducted with observance of most of such standards (13). Amram et al. study demonstrated that spiritual health could contribute greatly to successful and efficient career management, and argued that spiritual well-being was one of the effective factors for success and clinical competence of nurses (14). Spirituality at work is so significant that it should be considered the main core of delivery of health care services (15).

In nursing profession, spiritual health plays a vital role in coping with stress and improving health care quality, and contributes positively to promoting mental health and reducing mental disorders, because spiritual and religious beliefs are significantly associated with mental health signs such as relieved anxiety and depression and promoted self-confidence and self-control (14). Because nurses’ lack of clinical competence and lack of observance of professional ethics on the part of nurses in the health care system influence the patients' satisfaction and recovery, health care quality, standards for nursing services, and professional development (11), and no study has yet been conducted on clinical competence, professional ethics in nursing practice, and nurses' spiritual well-being, this study was conducted to investigate the clinical competence and its relationship with professional ethics and spiritual health among nurses of the Neyshabur University of Medical Sciences-affiliated hospitals in 2016.

Methods
The study population of this descriptive-analytical, cross-sectional study, conducted mainly to investigate the Correlation between clinical competence with spiritual health and professional ethics, consisted of all nurses working in different wards of the Neyshabur University of Medical Sciences-affiliated (22nd Bahman and Hakim) hospitals. 22nd Bahman Hospital is a general hospital with all general and specialty wards and Hakim Hospital has gynecology and pediatrics wards. Of this population, 281 eligible nurses were selected according to convenience sampling. Sampling was conducted from February 2016 till June 2016. The inclusion criteria were being employee of different wards of the two studied hospitals, holding at least bachelor's degree in nursing, and having at least six months experience of working as a nurse and the exclusion criteria doing something other than caring for the patients (for example working as a secretary or accountable for completing medical records) and failing to complete or return the questionnaires.

After the written approval to conduct this study was provided by the Research and Technology Deputy of the Neyshabur University of Medical Sciences and offered to the officials of the two hospitals, they agreed with conduction of the study in these hospitals. Then, the researchers conducted data gathering in different wards. In this study, the samples
were selected from those accessible to the researcher during the study and then questionnaires distributed. To do this, the researcher referred to the study samples while they were working at morning, evening, or night shift works to introduce himself, briefly explain the research purposes, and ensure them that the data drawn from the questionnaires would be kept private so that their confidence could be gained. After the participants provided written consent to participate in the study, they were given the questionnaires and told that they could fill out the questionnaires within the next 24 hours and then return them to the researcher.

To gather the data, a demographics questionnaire, a self-assessment scale of clinical competence, a nursing ethics questionnaire, and a spiritual health questionnaire were used. The demographics questionnaire consisted of 11 items about age, marital status, gender, educational status, nursing work experience, shift works, and accountability in the ward.

The clinical competence self-assessment scale used in this study was developed by Liu et al. in 2007. This scale consists of 55 items about seven aspects (caring, interpersonal communication, ethics and professional morality, professional development, education, critical thinking, and management) that are rated by 5-point Likert scale, 0 (I have no competence), 1 (I have low competence), 2 (I am somehow competent), 3 (I am sufficiently competent), and 4 (I am highly competent). Therefore, the lowest and highest attainable score of this scale are 0 and 275, respectively. The nurses' scores of clinical competence were categorized into three levels: 0-90 (low level), 91-180 (moderate level), and 181-270 (high level). The validity and reliability of this scale have been investigated by Karimi et al. Its validity was assessed by 15 faculty members of the Nursing and Midwifery Faculty of the Mashhad University of Medical Sciences and its Cronbach’s alpha coefficient derived 84% (13,16). In this study, the Cronbach’s alpha coefficient of this scale was estimated 0.95.

The nursing ethics questionnaire, which consists of 21 items about seven aspects, i.e. privacy, discretion, charity, justice, respect for human life, injury to people, and honesty, was developed and validated by Jahanpour et al. The validity of this questionnaire was investigated by face validity and then content validity, and its reliability investigated by Pearson's test and Kuder-Richardson formula. The content validity of this questionnaire was estimated 0.9 and for its reliability, Cronbach's alpha coefficient derived 0.6. The items of the nursing ethics questionnaire are rated by 5-point Likert scale, 4 (Always), 3 (Often), 2 (Sometimes), 1 (Rarely), and 0 (Never). The lowest and highest attainable scores of this scale are 0 and 84, respectively. The scores were categorized into three levels: 0-28 (Poor), 29-57 (Moderate), and 58-84 (Good). One who enjoys more appropriate nursing ethics attains higher score (17). In the current study, the Cronbach's alpha coefficient of this scale was estimated 0.69.

The spiritual health questionnaire used in this study was Spiritual health Scale that was developed by Paloutzian and Ellison in 1983 and consists of 20 items. The even-numbered items investigate existential health and the odd-numbered ones investigate religious health. Sum of the scores of existential and religious health represents the score of spiritual health. The items are rated by a 6-point Likert scale from strongly disagree to strongly agree. For the items that have a positive meaning, strongly disagree is scored 1 and strongly agree scored 6. For the items that have a negative meaning, strongly agree is scored 1 and strongly disagree scored 6. The lowest and highest attainable scores of this scale are 20 and 120, respectively, and the scores of religious and existential-spiritual health of spiritual health could be included in the analysis if they ranged 0-6. The scores of spiritual health were categorized into three levels: 20-40 (Poor), 41-99 (Moderate), and 100-120 (Good). This scale has been validated by Seyed-fatemi et al. and Allahbakhshian et al. For its reliability, Cronbach's alpha coefficient was estimated 0.93 (18). In the current study, the Cronbach's alpha coefficient of this scale was estimated 0.93.

The data were analyzed by descriptive statistics such as frequency and mean±standard deviation (SD), t-test, one-way ANOVA, Kruskal-Wallis, Mann-Whitney and Spearman's correlation coefficient in SPSS 21, and the level
Investigation clinical competence and its relationship of significance considered 0.05. All ethical principles were observed during and after the study.

**Result**

In this study, 281 nurses of 22nd Bahman and Hakim Hospitals of Neyshabur participated of whom 183 (65.6%) people were female and 81 (29.2%) were single. The mean±SD age of the participants were (30.77±7.71) years and mean nursing work experience were (6.98±7.06) years (Table 1).

![Table 1: Nurses's characteristics in 22nd bahman and hakim hospital](image)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male</td>
<td>96(34.4)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>185(65.6)</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>83(29.2)</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>198(70.8)</td>
</tr>
<tr>
<td></td>
<td>General</td>
<td>106(37.7)</td>
</tr>
<tr>
<td>Ward</td>
<td>CCU/ICU/NICU</td>
<td>87(31)</td>
</tr>
<tr>
<td></td>
<td>Emergency</td>
<td>88(31.3)</td>
</tr>
<tr>
<td>Hospital</td>
<td>22nd bahman</td>
<td>132(47)</td>
</tr>
<tr>
<td></td>
<td>hakim</td>
<td>149(53)</td>
</tr>
<tr>
<td>Working shift</td>
<td>Fixed</td>
<td>27(9.6)</td>
</tr>
<tr>
<td></td>
<td>rotation</td>
<td>254(90.4)</td>
</tr>
<tr>
<td>Education</td>
<td>BSN</td>
<td>266(93.6)</td>
</tr>
<tr>
<td></td>
<td>MSN</td>
<td>15(6.4)</td>
</tr>
</tbody>
</table>

The mean (SD) scores of nurses' clinical competence, professional ethics, and spiritual health were (2.70±0.46) from total score 4, (1.35±0.14) from total score 2, and (3.59±0.61) from total score 6, respectively, which represent moderate performance of the participants in all three areas. Moreover, the mean scores of different aspects of clinical competence demonstrated that the highest mean scores (3.11 ±0.50) was attained on management and mean scores of other aspects were education (3.01±0.57), professional development (2.98±0.73), interpersonal communication (2.80±0.32), ethics and professional morality (2.53±0.36), caring (2.18±0.16) and critical thinking (2.07±0.24), respectively.

In the light of the results of the Spearman's correlation coefficient, there was a significant positive correlation between clinical competence and spiritual health (p<0.001). Moreover, a significant positive correlation was observed between professional ethics and spiritual health (p<0.001) but there was no correlation between professional ethics and clinical competence (p=0.34) (Table 2).

![Table 2: relationship with clinical competence and professional ethics and spiritual health in nurses](image)

<table>
<thead>
<tr>
<th></th>
<th>Score of spiritual health</th>
<th>Score of professional ethics</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>p-value</td>
</tr>
<tr>
<td>Score of clinical competence</td>
<td>0.43</td>
<td>0.000</td>
</tr>
<tr>
<td>Caring</td>
<td>0.25</td>
<td>0.78</td>
</tr>
<tr>
<td>Interpersonal communication</td>
<td>0.04</td>
<td>0.03</td>
</tr>
<tr>
<td>Ethics and professional morality</td>
<td>0.04</td>
<td>0.09</td>
</tr>
<tr>
<td>Professional development</td>
<td>0.03</td>
<td>0.40</td>
</tr>
<tr>
<td>Education</td>
<td>0.10</td>
<td>0.70</td>
</tr>
<tr>
<td>Critical thinking</td>
<td>0.04</td>
<td>0.30</td>
</tr>
<tr>
<td>Management</td>
<td>0.50</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Besides that, clinical competence was not significantly correlation between age and nursing work experience (p=0.067). Regarding the mean score of clinical competence in the participants with different educational levels, one-way ANOVA displayed no significant difference (p=0.078).

According to t-test, clinical competence was significantly correlation between working in the specialty wards (p<0.000). In addition, clinical competence and hospital type were significantly difference (p<0.001) such that the mean±SD score of the nurses' clinical competence was (2.80±0.44) in 22nd Bahman Hospital and (2.61±0.44) in Hakim Hospital. Moreover, the shift schedule and clinical competence were significantly difference (p<0.001) such that the nurses with fixed shift schedules had higher clinical competence than those with rotating shift schedules. According to Mann-Whitney test, professional ethics and gender were significantly difference (p=0.012) such that the women attained significantly higher scores on professional ethics than the men (1.36 ±0.13 vs. 1.32±0.15), but marital status and professional ethics were not significantly difference (p=0.096).

According to Kruskal-Wallis test, there was not significantly correlation between educational degree and employment type and professional
ethics ($p=0.081$), but professional ethics was significantly correlated with the ward type and hospital type ($p<0.001$) such that the mean score of professional ethics was $(1.41\pm0.11)$ in 22nd Bahman Hospital and $(1.31\pm0.14)$ in Hakim Hospital. According to Mann-Whitney test, professional ethics and shift schedule were not significantly different ($p=0.066$). According to Kruskal-Wallis test, accountability and professional ethics were not significantly different ($p=0.059$). The mean (SD) scores of religious health, existential health, and spiritual health (consisting of religious and existential health) were $(48.3\pm7.6)$, $(46.2\pm8.6)$, and $(94.3\pm17.8)$, respectively. According to the standard cut-off points for the scale, none of the participants had poor spiritual health, $66.3\%$ had moderate spiritual health scores, but the rest had high spiritual health.

According to Mann-Whitney test, spiritual health and gender were not significantly different ($p=0.182$), but marital status was significantly different with spiritual health ($p=0.043$) such that the mean score of the married $(3.63\pm0.61)$ was higher than that of the single $(3.45\pm0.75)$. The results of Kruskal-Wallis test demonstrated a significant Correlation between spiritual health and educational level ($p=0.006$) such that people with higher educational levels attained higher spiritual health scores, but the employment type was not significantly different with spiritual health ($p=0.95$).

Kruskal-Wallis test also demonstrated a significant Correlation between the score of spiritual health and the ward type ($p<0.001$) such that the general wards nurses attained higher spiritual health scores than the specialty wards nurses. Moreover, the spiritual health score and the hospital type were significantly different such that 22nd Bahman Hospital nurses $(4.01\pm0.48)$ attained higher mean score for spiritual health than Hakim Hospital nurses $(3.25\pm0.49)$ did.

Mann-Whitney test demonstrated spiritual health and shift schedule were significantly different ($p=0.016$) such that nurses with fixed shift schedule attained higher spiritual health scores than those with rotating shift schedule.

According to Kruskal-Wallis test, accountability and the spiritual health score were significantly different ($p=0.001$) such that the mean score of nurses with a certain accountability was higher than that of nurses without accountability.

**Discussion**

The present study was conducted to investigate clinical competence and its Correlation with professional ethics and spiritual health among nurses of the Neyshabur University of Medical Sciences-affiliated hospitals in 2016. Total scores for self-assessment scale of nursing clinical competence, professional ethics, and spiritual health subscales, i.e. existential and religious, demonstrated that the nurses' performance was moderate in all three areas. Bahreini et al. study to compare nurses clinical competence in hospitals affiliated with Shiraz and Boushehr University of Medical Sciences according to self-assessment demonstrated that the nurses of Shiraz and Boushehr Universities of Medical Sciences-affiliated hospitals assessed their clinical competence as good (mean score: $87.03\pm10.03$ and $87.03\pm10.03$ from total score 100, respectively) (19).

Karimi Moonaghi et al. reported that the mean score of clinical competence of nurses in Mashhad University of Medical Sciences was derived $(3.10\pm0.5)$ according to self-assessment and $(2.9\pm0.6)$ (from total mean score 4) from supervisors' perspectives (13). Soroush et al. reported the mean score for clinical competence of nurses in Isfahan University of Medical Sciences-affiliated hospitals to be $(2.9\pm0.43)$ from total mean score 4 (20). The findings of these studies are consistent with the current study findings on self-assessment scores of nurse's clinical competence that represent an acceptable level of clinical competence among the nurses.

These findings show that most nurses perceive their own clinical competence as acceptable in the light of the current conditions, but as the role of nurse's clinical competence in patients' health and the quality of health care is important, this level of clinical competence should be
Investigation clinical competence and its relationship

promoted, which can be related to nursing and health education systems.

Lack of sufficient motivation, burnout, quantitatively and qualitatively inadequate in-service training, lack of satisfaction with and interest in job, disproportionate number of nursing staff and patients, and lack of clear standards for nurse's clinical competence are likely to cause decline in clinical competence among nurses (13).

Regarding clinical competence, the highest competence from the nurses’ perspectives was obtained on managerial situations, which is consistent with studies conducted by Karimi Moonaghi et al., Soroush et al., and Bahreini et al. (13,19,20). Therefore, it can be argued that the large number of critically ill and high-risk patients, short hospital stay, and incidence of complicated and unpredictable conditions require the nurses to respond quickly, which can lead to promotion of the nurses’ managerial skills (20). The current study demonstrated that there was a positive and significant correlation between clinical competence and spiritual health but no significant correlation between clinical competence and professional ethics. Therefore, it can be argued that nurses’ clinical competence is promoted with promotion of their spiritual health.

Regarding correlation between clinical competence and spiritual health, no study was found to report consistent results with the present study, but Karimi Moonaghi et al. study found a significant correlation between spiritual intelligence and clinical competence among nurses (13), and therefore we can argue that spirituality and its aspects affect coping positively and are effective in improving the quality of health care and nurses’ function. However, Khdayarian et al. reported that nurses’ age affected clinical competence because work experience and therefore clinical competence improved with increase in age (16).

It seems that with increase in age, work experience, and educational level of nurses, their clinical competences is enhanced. However, according to this study, age, work experience, and educational level were not significantly difference with clinical competence, which is consistent with Karimi Moonaghi et al. and Soroush et al. studies (13,20). Therefore, low payment, burnout due to heavy workload, and job dissatisfaction are likely to intensify among nurses with increase in age and work experience, which may influence the quality of health care delivered to patients.

The findings of this study demonstrated that professional ethics was positively and significantly correlated with spiritual health, which is consistent with Mohajeran et al. study on nurses of public hospitals in Kermanshah. Mohajeran et al. found a positive and significant correlation between ethics and spirituality at work, and that observance of ethics in the organization could somehow help predict the presence of spirituality at work. They also found that when staff were bound by professional ethics at work, they felt that they were significant in their profession. These arguments are consistent with Canda et al., Sheridan et al., and Bhagwan et al. studies (21-23).

The findings of the present study demonstrated there was correlation between professional ethics and spirituality at work; those nurses who consider themselves to be bound to do the works properly in the hospital and somehow comply with both ethical and professional considerations enjoy high levels of spirituality. Indeed, even in the absence of external requirements, higher-order factors, and fear of punishment, nurses conduct self-monitoring and self-management at work in some way, which can provide grounds for establishing, maintaining, and promoting the significance and importance in the nursing profession (18).

A limitation of the present study is the self-assessment of clinical competence that may contribute to the participants' subjectively responding to the items and therefore decreasing the accuracy and objectivity of the procedure. Therefore, this method of assessment should be complemented by another approach to assess nurse's clinical competence more objectively. Moreover, the results of clinical competence self-assessments can be compared with those of colleagues' and supervisors’ assessment to obtain more reliable findings. Besides that, further studies should be conducted to identify effective factors in achieving clinical competence in clinical and educational settings and improving
these factors as well as to investigate correlation of factors with clinical competence. Because the data in the current study were gathered by self-report and therefore may be influenced by the respondents' mental conditions, it is therefore recommended to design and conduct further studies using more objective approaches such as direct observation and objective structured clinical examinations (OSCE) as well as to assess the outcomes of health care services delivered by nurses in the presence of nursing officials in the hospitals.

In the light of the findings of this study, it is recommended to conduct assessment of nurses clinical competence as a codified program on a daily basis and use its results to license professional competence and employment, to develop encouragement and punishment programs, to plan for in-service training programs according to nurses educational needs, and to classify nurses based on their clinical competence so as to distribute them in general and specialty wards more appropriately.

Conclusion

Taken together, this study demonstrated that clinical competence was correlation between spiritual health and its aspects. People with spiritual health have holistic attitude toward life and are more able to resolve problems and adapt through enjoying moral and positive virtues. Because nurses face many problems and tensions every day, spiritual health can improve their competence and the quality of health care provided by them. Therefore, it is recommended to improve nurses spiritual health during education and use in-service training. Obviously, directors' and officials' knowledge about clinical competence of nurses who work in teaching health care centers provides valuable information to develop in-service education programs and ultimately promote the quality of nursing services.

Conflict of interest

The authors declare no conflict of interest.

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