

# The relationship between personality dimensions, spirituality, coping strategies and clinical clerkship satisfaction among intern nursing students: A cross-sectional study

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## Research article

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# Abstract

## Background

The clinical clerkship is a crucial stage in nursing training and the dissatisfaction at this stage can lead to nursing quit in the future. This study aimed to evaluate the relationship among personality dimensions, spirituality, coping strategies and clinical clerkship satisfaction in intern nursing students.

## Methods

This was a cross-sectional study. Considering any medical university in Iran as a single cluster, five medical universities, were initially selected. 65 nursing students were randomly selected from each university and from 325 distributed questionnaires, 293 were valid. All participants were provided with standard questionnaires regarding personality dimensions (NEO\_FFI), spirituality, coping strategies (WoCQ), and satisfaction with clinical clerkship. Data analyzed using Pearson correlation and hierarchical multiple regression

## Results

The results showed that spirituality, problem-focused coping and extraversion played an important role in predicting satisfaction with clinical clerkship among intern nursing students. Regression analysis represented that openness, extraversion, and spirituality could significantly predict problem-based coping style in intern nursing students. However, personality dimensions and spirituality were not good predictors for emotion-focused coping among intern nursing students.

## Conclusion

Personality dimensions, coping strategies and spirituality, in particular, are good predictors of clinical clerkship satisfaction among intern nursing students.

# Background

Clinical practice setting is an essential part of intern nursing students' education providing the students with opportunities to work with real clients. Clinical practice plays a key role in forming professional identity of nursing students, and the quality of clinical clerkship is a significant factor in determining the efficacy of nursing education [1]. The gap between theory and practice is one of the major problems for nursing students during course of clinical training [2]. The phenomenon is more evident among the students who have just entered into the clinical practice setting. It seems that nursing students have problems in matching the ideals, which they have regarding clinical practice and their real task.

Specifically, the problem is observed when a transition from the academic environment into the clinical practice setting occurs. A transition is defined as the period during which individuals experience a gap between practice and theory or so-called "reality shock" [3]. Reality shock is defined as a contradiction that nurses encounter when they enter into work setting and experience the challenges. Intern nursing

students are believed to take care of the professional and ethic codes, which are in contradiction to bureaucracy, resulting in the mismatch between the principles and ideals they have acquired at university and the situation they face in reality. This might cause a feeling of incompetence among students when they deal with real patients [4].

## **Satisfaction with clinical clerkship**

Nursing education programs in Iran consisted of a 4-year undergraduate education and then, students are certified with bachelor's degree. The last year of course is exclusively allocated to clinical clerkship delivered in hospitals affiliated to universities. In doing so, students are provided with opportunities to deal with health-care environment in most wards including intensive care and special hospital wards. Students are under the direct guidance of nursing staff for the first three years of education followed by acquiring clinical skills in the last year [5].

A large body of evidence demonstrated that the level of nurses' clinical clerkship satisfaction is related to an amount of time they are involved in the profession. On the other hand, inexperienced nurses are more likely to change their profession [6]. Therefore, to understand the consequences of the so-called "reality shock", preventing turnover, and helping them with retention, evaluating clinical clerkship satisfaction among nursing students who just have entered into clinical practice setting seems necessary [7].

Thus, evaluating the factors impressing the satisfaction with their clinical clerkship, during a period they have just entered into the clinical practice setting, they can be beneficial to their transition from this stage.

## **Personality dimensions**

A study suggested Personality characteristics are much better predictors than cognitive abilities for predicting nursing students' clinical performance and their retention. Also, personality characteristics are predictor of burnout and program completion in intern nursing students [8]. Furthermore, previous studies showed that clinical performance of students is associated with their personality characteristics [9]. Results of meta-analysis revealed that personality characteristics are in association with the nurses' job satisfaction [10]. Herein, for evaluating personality dimensions of student nurses, Costa and McCrae's "Big-Five-factor" theory of personality was employed. In "Five-Factor" model, personality dimensions were divided into five distinct categories as follows: neuroticism, extraversion, openness, agreeableness, and conscientiousness [11].

## **Spirituality**

Although the role of spirituality in clinical clerkship of intern nursing students has been explored, the role of spirituality in students' satisfaction with clinical clerkships could be a matter for speculation [12]. For those exposed to stressful situations like nurses, religion and spirituality seems beneficial to overcome the barriers. While a large body of evidence is available on spirituality and spiritual care of patients, a couple of studies have been done on the spirituality of nurses and their spiritual needs [13]. Nurses' understanding of spirituality is not confined to religion and their sense of spirituality was felt beyond

being religious [14]. It can be stated, however, that spirituality is a multidimensional concept, and various definitions have been put forward for it.

Recent studies revealed that spirituality is related to stress alleviation in nursing students [15] and nurses need to be provided with spiritual nourishment in their work environment [13]. "Spiritual job satisfaction" in Iranian nurses was investigated and results showed spiritual and immaterial aspects influence job satisfaction and it was considered that the profession is as an opportunity to worship of the God [16].

## **Coping strategies**

When entering into clinical practice course, students encounter many problems and stresses. These stresses can spring out of the gap between practice and theory, dealing with dying patients, sensing uncertainty about clinical ability, inter-personal problems with patients, and overload of daily work [17, 18]. Recent studies indicated that effective coping with stress during clinical clerkship is largely associated with their clinical performance [17]. Stress is defined as a kind of dynamic bilateral relationship between individual and environment; and Coping strategies are divided into problem-and emotion-focused that individuals deploy both coping strategies [19]. Previous studies showed that intern nursing students apply problem-focused strategies by complaisant to emotional-focused styles to cope with pressures from clinical practice brought upon them to bear [20, 17]. However, there is lack of evidence regarding the coping styles among students and also, relationship between the coping strategies and their clinical practice, clinical performance, and satisfaction with their clinical clerkships.

## **Hypotheses**

In this study, the main dependent variable was satisfaction with clinical experience. However, because coping styles were also important to nursing students in the clinical setting, this variable was also considered to be a dependent variable in the second phase. Hypotheses were as follow:

1. Personality dimensions, spirituality, and coping strategies can significantly predict clinical clerkship satisfaction among intern nursing students.
2. Personality dimensions and spirituality can significantly predict problem-focused coping strategies among intern nursing students.
3. Personality dimensions and spirituality can significantly predict emotion-focused coping strategies among intern nursing students.

## **Methods**

A cross sectional study design was used to evaluate the relationship among personality dimensions, spirituality, and coping strategies with clinical clerkship satisfaction regarding intern nursing students. Moreover, we addressed the question that out of personality dimensions and spirituality, which one could predict either problem- or emotion-focused coping strategies. The cross-sectional, correlational design was employed among intern nursing students.

# Participants and data collection

Research sample consisted of the intern nursing students who were fulfilling their clinical course at university-affiliated hospitals. A cluster sampling method was employed; among all the universities in Iran admitting students in nursing courses, five universities were randomly selected. Amongst intern nursing students in these universities, students were ascertained eligible if they were doing clinical practice at least 15 hours in a week. We prepared a list of eligible participants and using randomization software, and we selected 325 students (65 students from each university). Afterwards, researchers administrated preliminary interview and deliberate satisfaction was obtained before the study commencement. All participants were provided with comprehensive details regarding objectives, advantages, and how to fulfill the questionnaire. In addition, they were made to feel reassured of the confidential terms of the information. From 325 distributed questionnaires, 293 were valid (90.1%).

## Instruments

### NEO five factor inventory (NEO-FFI-S)

Short form of NEO five factor inventory (NEO-FFI-S) is a 60-item questionnaire measuring five dimensions of the typical personality: Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C) [21]. Respondents indicated their level of agreement with each item on a five-point likert-type scale. In this study, the authorized Persian translation of the NEO-FFI-S [22] was used. Validity and reliability of the NEO-FFI-S was approved by using a group of students [22].

### Spirituality scale

Spirituality was measured utilizing a researcher-made questionnaire. This scale is composed of 15 items. The items of the scale were designed based on the definition of spirituality [23] and it is composed of ultimate questions about life and chunks about meaning and relationship with the sacred or transcendent issues. Examples are: "I am more satisfied when helping the one in need of help although being myself in need of help" and "I have no doubt that the universe has a destination". Score is assigned to each item based on 5-point Likert-type scale. Content and construct validity of the scale were confirmed by a pilot study. In the present study, Cronbach's alpha of this scale was 0.92.

### Ways of Coping Questionnaire (WoCQ)

Persian version of Folkman and Lazarus' ways of coping questionnaire (WoCQ) [24] was used to measuring coping styles of the participants. This is a 67-items instrument scoring on a four-point likert scale. The coping strategies were grouped into two styles of coping: problem-focused and emotion-focused coping styles. Problem-focused coping style including cognitive and behavioral efforts is based on problem solving and helps to change or to control the stressful situation. On the other side, emotion-focused coping style including cognitive and behavioral efforts that help to reduce or manage the stressful situation but they don't directly focus on the problem solving. The Persian translation of the

WoCQ has demonstrated good internal consistency as well as high test–retest reliability in Persian version [25].

## **Satisfaction with Clinical Clerkships Questionnaire**

Satisfaction with clinical clerkships was measured utilizing a research-made questionnaire [26]. Items of this questionnaire were designed according to the basis of Herzberg’s two factor theory of job satisfaction (motivational and hygienic factors) [27]. This is a 36-items instrument scoring on a seven-point likert scale from strongly disagreement to strongly agreement. The Total score obtaining from sum of the scores of all Items showing the general satisfaction with clinical clerkships. Content and construct validity of this questionnaire were verified and Cronbach’s alpha coefficient was reported 0.96 [26]. In the present study, Cronbach’s alpha of this questionnaire was 0.92.

## **Data Analysis**

Statistical analyses were performed using SPSS version 16.0. Continuous variables are presented as mean  $\pm$  standard error, and categorical variables as proportions. Participants’ response to items of the same domain in the scale was used to replacing missing values. Partial correlation was used to explore the relationship between scores from standard questionnaires and results extracted from satisfaction with clinical clerkship questionnaire while controlling age and sex. Hierarchical multiple regression was performed to assess the ability of measures from personality dimensions, spirituality, and coping strategy to predict levels of satisfaction with clinical clerkship. Preliminary analyses were conducted to ensure no violation of the assumption of normality, linearity, multicollinearity and homoscedasticity.

## **Results**

A total of 293 participants included females (172) and males (121) comprised 61% and 39%, respectively. Mean and standard deviation of the variables, as well as their correlation with clinical clerkship satisfaction among intern nursing students are presented in Table 1.

Table 1

Mean and standard deviation scores for studied variables and their relationship with students' satisfaction with clinical clerkship

<b>Variables</b>	<b>Mean</b>	<b>SD</b>	<b>Correlation</b>
Neuroticism	34.59	7.22	-.24***
Extraversion	40.88	6.37	.43***
Openness	38.39	3.72	.10*
Agreeable	41.13	5.73	.39***
Consciousness	43.73	6.23	.40***
Spirituality	51.17	6.79	.53***
Problem-focused coping	55.37	9.60	.48***
Emotion-focused coping	58.61	8.48	.16**
Satisfaction with clinical experiences	155.52	35.42	1
*p < 0.05 **p < 0.01 ***p < 0.001			

Results of Pearson correlation indicated that there is a significant relationship between the independent variables (personality dimensions, spirituality, and coping strategies) and clinical clerkship satisfaction among intern nursing students. While neuroticism (of personality dimensions) is negatively correlated with dependent variable (satisfaction with clinical clerkship), all other variables found to be positively associated with clinical clerkship satisfaction. Results of hierarchical multiple regressions including clinical clerkship satisfaction as dependent variable are presented in Table 2.

Table 2  
results of multiple Hierarchical regression analysis for prediction of satisfaction  
with clinical clerkship in nursing students

variables	B	S.E.	$\beta$	T	R	R <sup>2</sup>	$\Delta R^2$
Personality dimensions							
Neuroticism	.45	.27	.09	1.70	.53	.28	–
Extraversion	1.22	.31	.22	3.96**			
Openness	– .86	.45	– .09	-1.89			
Agreeable	.27	.39	.04	.69			
Consciousness	.43	.34	.08	1.27			
Spirituality	1.30	.27	.32	4.87**	.59	.35	.07
Coping strategies							
Problem-focused	.97	.22	.26	4.44**	.65	.42	.07
Emotion-focused	.18	.22	.04	.82			
Constant	-45.64	28.28		-1.61			
*p < 0.01 **p < 0.001							

As shown, amongst subscale extracted from personality dimensions questionnaire, only extraversion significantly predicted dependent variable ( $r = 0.22$ ,  $p < 0.001$ ). In addition, the same significant predictive ability of spirituality ( $r = 0.32$ ,  $p < 0.001$ ) and problem-based coping style for clinical clerkship satisfaction was found ( $r = 0.26$ ,  $p < 0.001$ ). We included all personality dimensions in first block for performing hierarchical multiple regression and the results indicated that 28% of variances in clinical clerkship satisfaction were determined in this model (model 1 in Table 2). After model 2 variable (spirituality) has also been included, the model as a whole determined 35% of variances in clinical clerkship satisfaction. Noteworthy, 7% of overall variance in the variable of interest found to be determined by spirituality scores after the effects of personality dimensions scores were removed. However, after introducing measures of coping strategies in model 3, it was found that 42% of variance were determined by whole model (including all variables in model 1, 2, and 3). Although R<sup>2</sup> rose from 35–42% from model 2 to model 3,  $\Delta R^2$  remained constant compared with model 2.

Table 3  
 results of multiple Hierarchical regression analysis for prediction of problem-  
 focused coping in nursing students

variables	B	S.E.	$\beta$	T	R	R <sup>2</sup>	$\Delta R^2$
Personality dimensions							
Neuroticism	.02	.08	.01	.25	.43	.18	–
Extraversion	.25	.10	.16	2.58*			
Openness	.36	.14	.14	2.53*			
Agreeable	.05	.12	.03	.39			
Consciousness	.13	.11	.08	1.23			
Spirituality	.25	.08	.23	3.09**	.46	.21	.03
Constant	8.78	8.30		1.06			
*p < 0.01 **p < 0.001							

Constructed hierarchical multiple regression for evaluating predictive ability of personality dimensions and spirituality (data are presented in Table 3) revealed that openness ( $r = 0.14$ ,  $p < 0.01$ ), extraversion ( $r = 0.16$ ,  $p < 0.01$ ), and spirituality ( $r = 0.23$ ,  $p < 0.001$ ) could significantly predict problem-based coping style in intern nursing students. Although extraversion remained as a significant predictor after introducing emotion-based coping style as a dependent variable, the relationship with emotion-based coping style rendered not significant regarding openness and spirituality.

## Discussion

All the variables presented in the study were positively correlated with the students' clinical clerkship satisfaction; while, neurosis was negatively correlated. Findings are in concert with previous studies declaring similar associations in this regard. According to previous studies and the logical exception, all the correlations with students' clinical clerkship satisfaction were sensibly assumed, except positive correlation of emotion-focus coping considering the previous literature, it was presumed to be negative [28, 8]. Temporary use of emotion-focused coping in situations, which are not controllable, like experiencing a heart attack or waiting to undergo a surgery, can be beneficial but the case is different with long-run use of it as a special coping style [29]. As a result, a negative correlation between using emotion-focused coping style in students and satisfaction with their clinical clerkship cannot be taken granted and the obtained results might be due to the situations in which the participants in the present study faced them.

The results of regression analysis showed that spirituality predicts satisfaction with clinical clerkship among intern nursing students. In other words, considering the definition of spirituality, the students who found it meaningful and sacred, they, in their clinical practice, were more satisfied with their clinical clerkship. These findings are consistent with previous studies [30, 12, 31]. In religious society of Iran, religion and spirituality are intertwined and individuals believe in God as an omnipotent helping individuals to surmount their hardships. In a study conducting in Iran, it was concluded that Iranian nurses consider helping patients as an act of worshiping and believe that this contribution brings them spiritual rewards [16]. Evaluation of job values and job satisfaction among neophyte nurses [7], revealed that "philanthropic" values play an important role in nurses' job satisfaction and nurses who look at their job as an opportunity to help other people enjoy more satisfaction with their job. It seems that among Iranian students of nursing, some spiritual values are assimilated into job values and cause an increase in their satisfaction with clinical practice [31]. Also, it was found that problem-focused coping can predict satisfaction with clinical clerkship and emotion-focused coping has no role to play here, which is consistent with available evidence [32, 28]. To put it another way, the students who try to encounter reality shock and the factors producing stress in clinical settings and find a way around are more satisfied with their clinical practice comparing with those are motivated by excitation of stressful events that they face.

Among five factors of personality, only extraversion predicted satisfaction with clinical clerkships among intern nursing students. Considering the definition of extraversion [11], students who were sociable, lovers of others and enjoyed talking to patients and also, those who had a tendency to acquire various experiences from their clinical practice, were more satisfied with their clinical clerkship [33, 34]. It was also found that spirituality predicted problem-focused coping which could be translated to the fact that students who could find sacredness in their clinical practice resort to problem-focused coping when they are situated in distressing clinical practice [35]. Although a few studies have been carried out on the relationship between spirituality and general coping strategies, most of these studies refer to the role of spirituality as a way to cope with stress as "spiritual coping" [36, 37]. In a conducted probe, three roles to spirituality/religion in coping process were assigned: 1) proposing a meaning for life, 2) feeling of control in various situations, and 3) building self-esteem in individuals [38]. Justifying the role of spirituality in predicting problem-focused coping among intern nursing students, spirituality contributes in dealing and finding a solution in a way that students will be able of facing their distressing clinical settings with a problem-focused coping style. The results of regression analysis showed that extraversion and openness could predict problem-focused coping. Extraversion, as a general tendency to be assertive, is defined as being active and doing gregarious practice. These individuals tend to be cheerful and therefore, it is logical to assume turning to others [39] and seeking social support as a subpart of problem-focused coping style [29]. Openness (to clerkship experiences), also, is defined as the tendency to ponder novel ideas, unconventional values, and divergent thinking. Therefore, it can be assumed that those who score high in openness are flexible, creative, and capable of exploiting a number of coping strategies more efficient to deal with distressing situations [39].

In sum, among the variables of personality dimension, only extraversion could predict emotion-focused coping. As a whole, these variables are not capable predictors of emotion-focused coping. These findings

may be due to the fact that nursing students who face the reality shock, and stress from clinical practice can only do surmount their problems in future by sealing them, not committing self-blame and self-recrimination [40]. Also, the results of earlier studies showed that students employ problem-focused strategies at the period rather than emotion-focused strategies [32].

## **Conclusion and Recommendation**

Based on the findings, it can be concluded that spirituality is an important factor in predicting nursing students' satisfaction with their clinical clerkships. Using problem-based coping in students and paying attention to their spiritual needs can be effective both in coping with the stressful situations of clinical work and in enhancing their satisfaction with clinical clerkships. Also, helping students to resolve their clinical problems rationally and enhancing their problem solving skills in dealing with clinical stress can be associated with their satisfaction with clinical experience. Considering the role of extraversion and the problem-focused coping in predicting the satisfaction of clinical experiences in nursing students, it can be concluded that Probably, the training of social behaviors, communication skills and proper interaction with patients and hospital staff (extraversion characteristics) can also help nurses in effective coping with stressful work situations and also increase their satisfaction with their clinical experiences.

## **Limitations**

Considering the difficulties encountered by nursing students when they enter the clinical practice, there is a need for further study on this issue. In order to be more confident in the findings of this study, especially with regard to limited studies on the role of spirituality in clinical work and the spiritual needs of nursing students, more similar studies are suggested. Given that spirituality [41] and coping strategies [42] are to some extent dependent on ethnicity, the generalizations of the research findings to other ethnic groups should be carried out with caution and it is suggested that similar studies be conducted in other ethnic groups. This cross-sectional study was conducted to assess the factors predicting clinical clerkship satisfaction, it is suggested that further studies utilized longitudinal method to assess these factors.

## **Abbreviations**

NEO\_FFI: NEO five factor inventory; WoCQ: ways of coping questionnaire.

## **Declarations**

### **Ethics approval and consent to participate**

Approval for the original study was obtained through a researcher-made constant form for the guarantee of information confidentiality filled by any participant. Ethical consent was obtained from Ardakan university research committee (Approval number: 1397/12) and Shahid Sadoughi university of medical sciences committee (Approval ID: IR.SSU.Rec.1398.054).

### **Consent for publication**

All participants were informed and completed consent form.

### **Availability of data and materials**

Data and materials are confidential but they will be available upon reasonable request

### **Competing interests**

The authors have no conflicts of interest to state.

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### **Authors' contributions**

Y R-M participated in study design, data collection, and data analysis. MA participated in data collection and data analysis. All authors read and approved the final manuscript.

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