

Analyzing the effect of spiritual components on nurses' Work-life Quality Using Structural Equation

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Original Article

Abstract

Introduction: Spirituality at work describes employees whose job is satisfying, meaningful and purposeful. Spirituality at work would be accompanied with a meaningful life and job and a high-quality work-life for employees. This study tries to analyze the effect of nurses' spiritual leadership components on their work-life quality.

Methods: This paper is a descriptive cross-sectional study and an applied research. The population of this study comprised all nurses working in various medical wards of five hospitals in Tehran Province. Out of 300 nurses working in these five hospitals, 150 nurses, who were in their workplace when the questionnaires were distributed in the mentioned hospitals, were selected randomly. Demographic data and two five-point Likert questionnaires on spiritual leadership and work-life quality were used in this study to collect information. Data were analyzed with SPSS 18 as well as descriptive and inferential statistical methods and structural equations.

Results: Analyzing the results of linear regression and structural equations made it clear that the levels of productivity (significance level: 0.064), vision (significance level: 0.045) and faith (significance level: 0.033) have had the most impact on the work-life quality, respectively and other variables of spiritual leadership have had a relatively weak linear, but without significance level, relationship with work-life quality.

Conclusion: This study indicates that spiritual leadership has a positive and significant effect on work-life quality and altruism and membership, among other aspects of spiritual leadership, have the highest impact on nurses' work-life.

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Introduction:

Today, regarding to the broad and fast developments made in health sector, observing the professional ethics code of conduct by medical services workforce has been emphasized by the

related authorities. The innate concept of professionalism is nothing but prioritizing patients' needs to personal needs (1). Hence, a need to a more sacred leadership has been developed by which four fundamental aspects of human being nature including body (physical), mind (logic

thinking), nature (emotions and feelings) and soul are integrated. In fact, meeting such needs depends on an extensive organizational transformation into a learning organization paradigm (2,3). In general, the importance and necessity of spirituality in organizations are so high that they can bring about activity for organizations, humanity and society and responsibility for the environment (4,5).

However, on the other hand, an ever-increasing emphasis has been put on the work-life quality in organizations in recent years. Work-life quality refers to meeting various needs of employees through activities and results gained from contribution in workplace (6). Recent studies indicate that employees with a high-quality work-life enjoy a high level of organizational identity, job satisfaction, job performance, and a low level of turnover and personal self-alienation (7,8).

Nurses' spiritual leadership makes them obliged to respect their colleagues and patients' rights and it also prevents many intra-organizational anomalies which are followed by delay or even avoidance to provide services, enmity and organizational chaos (6).

Various studies on assessment of spiritual leadership and work-life quality have been conducted, so far. Mohammadi et al. (2010) studied about the relationship between work-life quality of Tehran University academic staff and their productivity and they argued that improving various elements of this important standard will increase the productivity of university professors significantly (4). A similar study by Dargahi et al. (2007) was carried out on nurses working in Hospital of Tehran University of Medical Sciences. They pointed to the significant effect of a safe and healthy workplace, rule of law in job organization and improving human capabilities on their productivity (3). Analyzing the effect of spirituality on enabling employees of Stanley University by Adhikari et al. represents weak points of spiritual leadership and dissatisfaction of the achieved scientific capabilities (10). Nasr-e Esfahabi (2011) made it clear that there was a deep gap between spiritual leadership capabilities of Isfahan University faculty members and their ideal work-life quality; thus, a revision on infrastructures needed for developing sense of spirituality was necessary (14).

Regarding the available studies on spiritual leadership, the effect of work-life quality on enabling staff, analyzing the spiritual leadership and its relationship with nurses' work-life seems necessary. Since, no study on the effect of two above-mentioned factors on nurses in Iran has been conducted, so far; this study was carried out in order to analyze the effect of components of spiritual leadership on nurses' work-life in five public hospitals in Tehran City in 2011.

Methods:

This trial is an applied, developmental and descriptive-survey study in terms of objective, branch and method, respectively. It was carried out in five public hospitals in Tehran City including Sajjad, Be'that, Imam Khomeini, Mofid and Arash in 2011. A total of 170 questionnaires were distributed, out of which 150 questionnaires were recollected. Participants in this study were 150 nurses (30 nurses from each hospital) working in various wards (e.g. surgery, gynecology, ICU, internal medicine, and pediatrics) of the mentioned hospitals who were selected using available sampling technique. A questionnaire including demographic data (age, gender, education level and marriage status) and two questionnaires for assessing spiritual leadership of organization (Fry et al.'s SLT questionnaire) were used in this study. Spiritual leadership theory (SLT) questionnaire includes seven main dimensions including vision, faith/hope, altruistic love, meaning/calling, membership, organizational commitment, and productivity. Fry et al. reported the reliability coefficient of the test 0.93.

Work-life quality questionnaire was prepared by Ghalavandi based on Walton model. It appraises work-life quality in terms of eight dimensions and totally has 34 five-point questions (very low, low, medium, high, and very high) to which 1, 2, 3, 4, and 5 scores are attributed (13).

The questionnaire has 34 questions; each question represents a component of work-life quality. Components or elements of work-life quality in this questionnaire are as follows:

Fair and sufficient payment, safe and healthy workplace, opportunity of promotion and continuous security, rule of law in organization,

social dependence of work-life, general space of life, integrity and social cohesion in organization and development of human capabilities. For determining its validity, subject of this study was modified during interview with experts and university professors; so, it made sure that the questionnaire appraises exactly what the researchers intended to analyze. According to Cronbach's alpha method, its reliability was found 0.87 which indicates that the questionnaire was reliable. For testing the study' hypothesis, Spearman's rank correlation coefficient (regarding qualitative nature of variables) was used and SPSS 18 was employed to analyze the mentioned correlation. The correlation between work-life quality and spiritual leadership was found 0.50. It also was tried to design simple and clear questions. For testing the study' hypothesis, Spearman's rank correlation coefficient (regarding qualitative nature of variables) was used and SPSS 18 was employed to

analyze the mentioned correlation. The correlation between work life-quality and spiritual leadership was found 0.50.

Results:

In general a total of 150 questionnaires were collected and the answers to these questionnaires were used as the basis of the study to perform analysis. Table 1 summarizes demographic data collected from sampling. As it is seen 27 male (18%) and 123 female (82%) nurses participated in this study. The average age of nurses was 20.2 ± 6.32 years old which indicates that our population was young. About 80% of staff had a bachelor degree, whereas 20% of them had a M.S. degree and there were equal number of married and single nurses in our population; hence, the marriage status became effectless in this study.

Table 1. Demographic data of the Sample

Properties	No.	Percentage	Properties	No.	Percentage	
Age	20-25	7	Education level	B.A. degree	119	
	25-30	67		M.S. degree	31	
	30-35	55			Marriage Status	Single
	35-40	18		Married		74
	40-45	3				
Gender	Male	27				
	Female	123				

In this study, Confirmatory Factor Analysis (CFA) was used to confirm each factor (study's structures). The technique enables the researcher to confirm the model. In this study, once each structure was tested separately and once the whole model was tested. Various tests and standards have been proposed for acknowledging the results of CFA, CFI, RMR, GFI, and AGFI were used in this study. As table 2 indicates the mentioned indicators were used to analyze significance level of structures of both questionnaires, i.e. spiritual leadership and work-life quality, separately. The results suggested that commitment (significance level: 0.78) had the highest and productivity (significance level: 0.68) had the lowest significance level; for work-life quality structures, social dependence of work-life with 0.78 and general space of life with 0.56 show the highest and lowest significance level, respectively.

Table 2. Confirmatory Factor Analysis (CFA)

Variables	Confirmatory Factor Loading	
Spiritual Leadership	Significance	0.72
	Productivity	0.68
	Vision	0.76
	Hope/faith	0.72
	Membership	0.75
	Altruism	0.69
	Commitment	0.78
	Fair and sufficient payment	0.70
	Safe and healthy workplace	0.60
	Rule of law in organization	0.71
Work Life Quality	Social dependence of work life	0.78
	General space of life	0.56
	Social integrity and cohesion in organization	0.74
Development of human capabilities	0.72	

In this study, for analyzing the appropriateness of the structural equations, six factors are examined. The first factor is (X^2/df), if it is $1 < X^2/df < 3$, it means that the model is highly

confirmed, the factor in this study was reported 1.64. The second factor is RMSEA, the closer to

0.05, the more effective it will be; in this study, for model 1, it was reported 0.068.

Table 3. Factors and Measurements of Model 1 of Structural Equations

X2/df	GFI	IFI	NFI	CFI	RMSEA
1.64	0.88	0.94	0.82	0.95	0.068

Table 4. Factors and Measurements of Model 2 of Structural Equations

X2/df	GFI	IFI	NFI	CFI	RMSEA
1.64	0.88	0.94	0.82	0.95	0.068

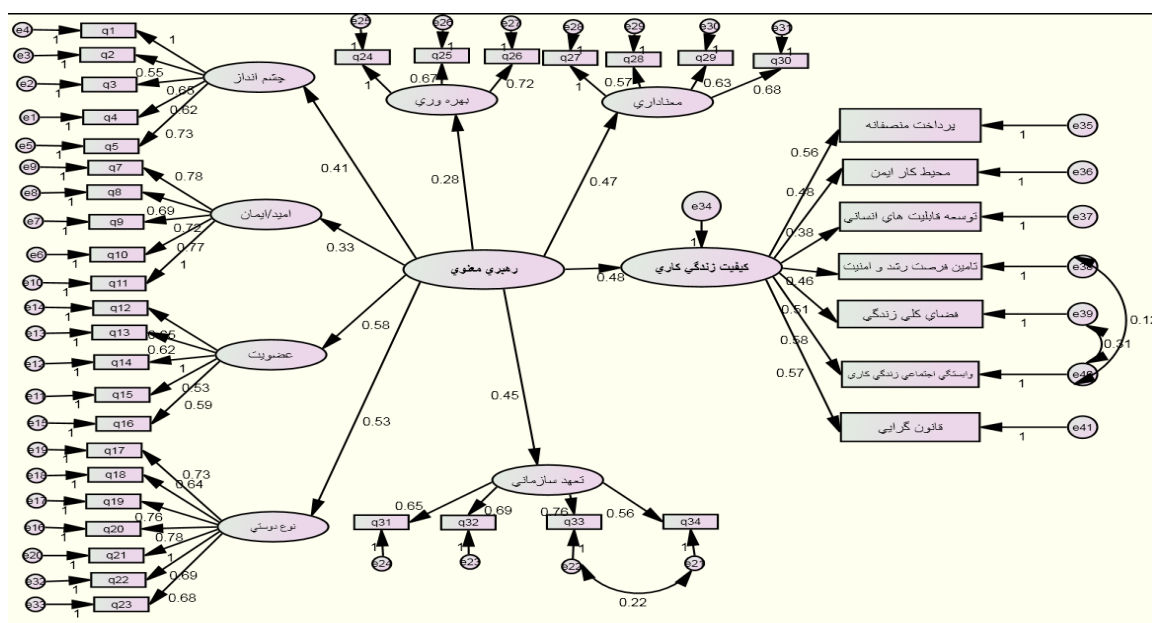


Figure 1. Modeling of Structural Equations of Model 1 (significance coefficients and confirmatory factor loadings)

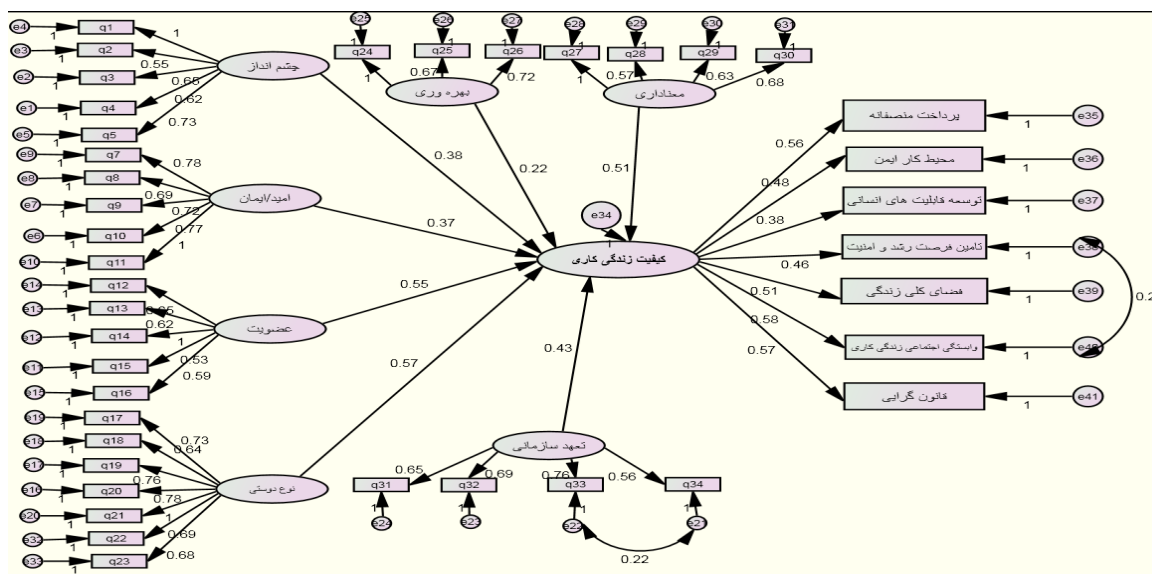


Figure 2. Modeling of Structural Equations of Model 2 (significance coefficients and confirmatory factor loadings)

Table 5. Results of structural equation model in testing hypothesis

Hypothesis	Path	Regression coefficient	Critical rate	Significance level	Result
	Spiritual leadership → work-life quality	0.48	5.34	0.000	Confirmed
1	Significance → work-life quality	0.51	5.49	0.000	Confirmed
2	Productivity → work-life quality	0.22	2.761	0.064	Denied
3	Vision → work-life quality	0.38	4.36	0.045	Confirmed
4	Faith → work-life quality	0.37	4.67	0.033	Confirmed
5	Commitment → work-life quality	0.43	5.12	0.000	Confirmed
6	Membership → work-life quality	0.55	6.13	0.000	Confirmed
7	Altruism → work-life quality	0.57	6.56	0.000	Confirmed

Four other factors are CFI, NFI, IFI and GFI which vary between 0 and 1, the closer to 1, the more effective model will be. In this model, they reported 0.88, 0.94, 0.82, and 0.95, respectively. Table 3 and 4 summarized factors and measurements of models 1 and 2.

Figures 1 and 2 indicate modeling of structural and CFA equations for variables and questions of this study.

Figure 1 deals with the significance level of each effective structure of spiritual leadership. Regarding the figure, the general significance level of the structure is measured. For example, membership, which has the highest effect on the spiritual leadership, is the result of integration of all confirmatory factors of answering to five related questions. Accordingly, productivity will find the lowest effect and other factors including altruism, work life quality, significance, organizational commitment, vision, and faith/hope will find effect, respectively (from high to low).

Figure 2 also deals with the effectiveness of spiritual leadership structures on work-life quality in which the highest effectiveness belongs to altruism (0.57) and the lowest effectiveness belongs to productivity (0.22). It also deals with the significance of work-life quality on its components in which the highest significance level belongs to social dependence of work-life (0.58), whereas the lowest belongs to development of human capabilities (0.38). Similarly, the results of analysis indicate a weak significant relationship between social dependence of work-life and preparing growth opportunity and general space of life which are due to answers of statistical population and represents correlation between such components.

Path analysis was used for conducting the experimental test of the conceptual model.

Table 5 summarized quantitative estimation of equations between variables and maximum possible estimations for the path of hypotheses.

As the model 1 of structural equations shows, the effect of spiritual leadership in work-life quality is significant; it means that the findings of the model imply the positive relationship between spiritual leadership and work-life quality. Table 5 summarizes the casual analytic findings using structural equations model for testing the hypothesis of the study. In amos software, if critical rate (CR) is more than 1.96, it means that there is a positive causal relationship among variables, which in turn confirms the hypothesis. Table 5 shows the results of this model:

Conclusion:

Analysis of the results implies that significance is very effective in work-life quality of nurses. Accordingly, Dargahi et al. indicated that two third of hospitals' workforce have a weak significance which in turn reduces their work-life quality (3). Muhammadi et al. studied about the effect of productivity on work-life quality and they found that this factor has had a negative effect on nurses' work-life because of lack of necessary management supports, either financial or psychological. Results of this study confirmed this hypothesis and stress the workforce bears during working hours were reported as the cause of this phenomenon (4). There was a positive relationship between vision and work-life quality which it was compatible with findings of Allaf Javadi et al. (15), Ghalavandi (13) and Ziaie (14). To explain the possible cause of this we can refer to a certain work statement in hospital rules and necessity to meet them which it suggests the rule of law and standard regulations. For

another finding of the study, the effect of faith on work-life quality of nurses, data shows a positive and significant relationship. It is compatible with Yazdi-Moghadam. To explain this finding, it can be said that it is due to a strong spirituality, passion to work and serving people, spiritual and heavenly rewards and necessity to follow organizational rules, as working nurses who are faithful can improve their work-life quality, thus this finding is not unexpected (13). Likewise, findings suggest that there is a significant relationship between commitment and work-life quality, it means that nurses who are more committed, have a better work-life than others. It was compatible with Yazdi-Moghadam (12), Ziaie (20), and Dargahi (3). Another finding of the study is the significant relationship between membership and work-life quality, it means that sense of cooperation and correlation among those who are working in the health sector are inevitable influenced by the quality of treatment of patients and it was compatible with Khaghanizade et al. This finding would be due to the fact that decreasing working hours, working load and increasing the quality of services will result in formation of teams with certain objectives that can be followed by organizational productivity, which is satisfaction of patients and their caregivers (8). Another result of the study showed that there is a significant and positive relationship between altruism and work-life quality; it was compatible with Shahbazi (11) and Fatemi (9). It can be said that the sense of altruism, meeting needs of patients and transferring the pleasant sense of health after treatment can play a key role in improving the work-life quality of nurses.

Generally, the results suggest that most components of spiritual leadership have significant and positive effects on work-life quality of nurses, as improving such components may result in improving work-life quality and finally in facilitating treatment process of patients. Therefore, it must be emphasized in all seminars and conferences on training professional and spiritual ethics held in hospitals and medical centers, because spiritual leadership structures pave the way for realization of noble traits in the society and improving the work-life quality.

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