

Predicting Effect of Organizational Commitment on Organizational Effectiveness in Intensive Care Unit Nurses of Therapeutic and Educational Centers of Hamadan University of Medical Sciences in Iran

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Abstract

Introduction: Determining the effect and relation of organizational commitment on organizational effectiveness in nurses is essential and important. By determining the relationship between the various variables involved in organizational effectiveness, it is possible to provide the necessary platform for planning to increase and improve organizational effectiveness in order to develop the quality of educational and therapeutic services. The aim of this study was to measure the correlation of organizational commitment as a predictor effect with organizational effectiveness in nurses of intensive care units of Hamadan therapeutic and educational centers. **Methodology:** A cross-sectional descriptive and analytical study was carried out on 277 nurses of intensive care units in Hamadan University of Medical Sciences in 2017. Data gathering tool was included 24- question Allen & Meyer' organizational commitment and 20- question Taylor & Bower' Organizational Effectiveness in 5 point Likert scale. Data were analyzed by SPSS software (Version 18) using descriptive and inferential statistics. **Findings:** Intensive care nurses had a mean age of 32 years old, 83.4% female, 67.1% married, 71.47% less than 10 years of work experience and 97.8% bachelor of nursing. Mean score of organizational commitment (75.65±10.87) and organizational effectiveness (57.22±15.80) were, that were interpreted in the moderate level. The correlation between organizational effectiveness and organizational commitment was positive and significant, which was interpreted in moderate level (0.575). From the dimensions, the organizational climate had the highest correlation with organizational commitment (0.595), and the normative dimension of organizational commitment had the highest correlation with organizational effectiveness (0.518). ($P \leq 0.01$) **Conclusion:**

organizational commitment can be viewed as an important antecedent factor for the organizational effectiveness of intensive care units nurses. The implementation of single nurses, women, higher education and the informal employment status are more appropriate and recommended to work in intensive care units.

Keywords: Nurses, Intensive Care Units, Organizational Effectiveness, Organizational Commitment

Introduction

The health and medical system is a large and complex social organization with many processes and components that play an important role in maintaining and improving the health of the community (1). With the advancement of science and technology, population changes and the diversification of health needs in society has undergone significant changes in recent decades in different countries of the world (2). Some developing countries such as Iran have made good progress in changing their healthcare system and restructuring public hospitals in the form of the therapeutic and educational centers (3, 4).

These centers are delivering their updated services effectively as a key health, treatment and educational delivering organization by training medical group human resources and bridging theory and practice gap (5). These educational and therapeutic centers with academic commitment and accountability have fundamentally roles to maintain and promotion of physical, mental, and spiritual health of individuals of community by scientific, research-based, updated and optimal health, therapeutic and educational services (6). Moreover, staff of these centers especially nurses occupy a substantial role to maintain and promotion of quality of educational

and therapeutic services with patients' satisfaction (7).

Intensive care units are considered to be heart of educational and therapeutic centers because of providing efficient and high-quality medical and nursing services using advanced technologies (8). Intensive care nurses face with work overload, occupational stress, depression and emotional reactions due to critical conditions or death of patients (9). Effective and committed nurses in intensive care units could help them to maintain and promote the quality of nursing services and their coping with critical situations (1, 10).

Organizational commitment is the linkage between individual and organization which can be defined as a psychological thought's frame for people which as a positive attitude motivate personnel to work towards organizational goals (11). Organizational commitment also has defined as an emotional dependency and loyalty to organization (12) which cause to have work conscience, ethics, accountability and motivation (13). Some models have presented for explanation of organizational commitment by researchers such as Quijano-Chatman and Oreilly - Chatman's and Allen-Meyer (12, 14 and 15).

Quijano's four-dimensional model explain organizational commitment with dimensions of value related (congruence of values and objectives), affective (need for affiliation), exchanges (extrinsic rewards), and need (keeping job) (14). The Oreilly and Chatman's three-dimensional model also explain organizational commitment with dimensions of internalization (congruence of values and objectives), identification (desire for affiliation), and compliance (gaining specific rewards) (15). Moreover, Allen and Meyer proposed a three-dimension model which explains organizational commitment with dimensions of affective (emotional attachment, identification, enjoy membership), continuance (leaving costs and benefit), and normative commitment (feeling of obligation) (16).

Allen and Meyer's three-dimensional model employed in this study assesses organizational commitment in affective, continuance, and normative commitment dimensions (16). Affective commitment is considered as emotional attachment to organization and cause to decreasing absenteeism and job leave and also increasing of motivation and productivity in employees (17). Continuance commitment is considered as employees' perception of the costs of staying in the organization as investments rather than leaving the organization as alternatives and is related to compensation and reward systems (18). Normative commitment refers to the willingness of employees to stay in the organization based on their feelings, tendencies and judgment of others. (11). the normative commitment

points to the staffs' willing to staying in the organization on the base of emotions, desires and others views (19). Employees' high organizational commitment has a crucial role in predicting concepts such as organizational effectiveness in the organization (11, 20).

Organizational effectiveness is not a single concept, but a complex subject that includes different preferences and expectations, which is directly related to the expansion of the organization, first described by Cumming & Warley in 1986 and used as knowledge of behavior and experience for organizations (21, 22). Organizational efficacy is a way for organizations to evaluate the access of goals through organizational strategies (23).

Simply, organizational effectiveness is an ongoing companion to achieving goals (11, 24). Experts believe that organizational effectiveness is a major issue in all organizational analyzes and it is impossible to imagine an organization that is not effective (25). An effective organization that benefits from its resources without waste and unnecessary burnout of employees and organizations (21), which leads to such things as reducing absenteeism, leaving, job dissatisfaction, motivation, value of human resources (26).

Researchers have defined the effectiveness as doing the right thing and efficiency as doing things correctly. The concept of effectiveness lay in the concept of efficiency. Efficiency has a quantitative aspect and effectiveness has a qualitative aspect. The organization's efficiency is the amount of resources used to produce a unit of product and can be calculated in terms of consumption per product, and has a more limited concept that is used in relation to inter-organizational affairs (27).

Productivity is defined as best by using existing resources for current production or production. Efficiency and productivity are closely interrelated with each other, so that they are correlative, but effectiveness is in a higher level in terms of comprehensiveness, which takes into account, in place of an absolute production-oriented view, other parameters such as the status of manpower, the quality and good reputation of the organization, etc. (28-30). According to Peter Drucker, effectiveness is the key to the success of the organization (31).

Various models have been developed to assess the effectiveness of an organization, which is used in measuring effectiveness that focuses on human resources (27). Models include: goal model, traditional model, system model, strategic constituencies model, competitive values model and ineffective model (27, 28).

Organizational commitment and effectiveness have been investigated in some of studies (11, 32), where the communication achieved depends on the organizational commitment of the staff and management (11). Relationship between

organizational commitment and organizational effectiveness is very similar to the establishment of organizational commitment in the staff, and other complex factors are involved which their linkage cannot be understood easily (32).

The high contribution of nurses and especially intensive care unit nurses in providing educational, therapeutic and caring services to patients and their families and the implications of these services in society, and the sensitivity and importance of nursing profession, seems to be necessary in the field of commitment and organizational effectiveness in educational and therapeutic centers.

The management of nurses, especially in intensive care units, is challenging and involves many problems, such as quitting, early retirement and reimbursement, and shortage of nurses. Therefore, increasing organizational commitment and consequent organizational effectiveness in nurses and educational centers is very important. Organizational commitments of employees not only increase the organizational performance and effectiveness of the organization (33), but also decrease the quality of services, such as delays, displacement and absenteeism (27). Therefore, we decided to conduct this research as a Predicting Effect of organizational commitment on organizational effectiveness in nurses of Hamadan's educational and therapeutic intensive care units.

Methodology

A cross-sectional study was carried out in 2017 on 300 randomized intensive care nurses working in five therapeutic and educational centers (Besat, Ekbatan, Shahid beheshti, Farshchian, and Fatemieh) of Hamadan University of Medical Sciences, Hamadan, Iran. The data gathering tool was a questionnaire consisting of three sections: demographic characteristics, Allen & Meyer organizational commitment questionnaire (35) and Taylor & Bower's organizational effectiveness questionnaire (11).

The demographic profile questions were about age, gender, marital status, education, employment status, overall work record, work experience in the intensive care unit, the workplace and the educational and therapeutic center. The questionnaire of 24 organizational commitment questionnaires, Allan and Meyer, measured the commitment in three dimensions: normative commitment (8 questions), continuous commitment (8 questions) and emotional commitment (8 questions).

The questionnaire includes 20 questions of Taylor & Bower's organizational effectiveness belief in three dimensions: satisfaction (7 questions), leadership (8 questions) and organizational climate (5 questions). This questionnaire is generally based on the Likert scale of 5 options, including "I fully agree" 5, "I

agree" 4, "I have no idea" 3, "I disagree" 2 and "I totally disagree" 1, and for the effectiveness of the "very much" option 5, "High" 4, "I have no idea" 3, "Low" 2 and "Very Low" 1.

Organizational commitment questionnaire ratings were generally interpreted between 89-120 as high, between 56-88 as moderate and between 24-55 as low levels. The organizational effectiveness questionnaire was generally interpreted 80-100 as high, between 41-60 as moderate and between 24-40 as low levels. The organizational commitment questionnaire by Allen & Meyer (35, 36) and the Organizational Effectiveness Questionnaire (Taylor & Bower) (11, 31) have been reviewed and approved in a number of studies on content validity and reliability. In this study, Cronbach's alpha, organizational commitment was 81.1% with a reliability of 0.79 and for organizational effectiveness, Cronbach's alpha was 92% and the reliability of the test was 0.89.

After the necessary permission from Hamadan University of medical sciences was obtained, 300 samples were selected from the intensive care units of therapeutic and educational centers on stratified random sampling basis. Nurses were selected accidentally from the monthly shift program in every intensive care unit, then, informed consent was obtained from each of the nurses before they filled out the questionnaire in the presence of the researcher. Data were extracted from questionnaires and subsequently fed into the computer, where the SPSS software (Version 18) was run to conduct statistical analyses, that is, to find descriptive statistics (frequently distribution, mean, Standard deviation), inferential statistics (Pearson's correlation coefficient).

Findings

Out of the 300 nurses who had been provided with the questionnaire, 277 returned it (response rate = 92.3%). The subjects in this study had a mean age of 32 years, 83.4% of them were female (the rest were male), and 67.1% of them were married (the others were single). A substantially large proportion (97.8%) of the nurses had a bachelor's degree, with the rest holding a master's degree in nursing. Their total work experience and work experience in intensive care units were on average 8.59 and 5.3 years, respectively. Most of the nurses (31.4%) worked in the ICU, while only small minorities of them were employed in the burn care unit (1.8%). Slightly more than half (56.65%) of the subjects were permanent employees, and the rest were on a fixed-term contract (Table 1).

The highest obtained mean scores in the organizational commitment of nurses of intensive care units was for the age group of 46-48, women, singles, nursing experts, contractual employment status, overall work experience of 20-25 years, work

experience 11 to 15-years in intensive care units , ICU Cardiac Surgery and Nurses of Farshchian educational and therapeutic center (Table 1).

The highest mean scores obtained in the organizational effectiveness of nurses in intensive care units is the age group under 30, women, single nursing staff, contractual employment status, overall work experience of 21-25 years, work experience in intensive care units less than 5 years , ICU Cardiac Surgery nurses and Besat educational and therapeutic center nurses (Table 1).

Other results of the study showed that the organizational commitment of nurses in intensive care units with mean and standard deviations (75.65 ± 10.87) was interpreted in the moderate level.

Organizational effectiveness of nurses in intensive care units interpret with mean and standard deviation (57.22 ± 15.80), which is interpreted in the moderate level (Table 1).

In this study, there was a significant correlation between organizational commitment and organizational effectiveness (0.575). Among the dimensions of organizational commitment, the dimension of normative commitment with organizational effectiveness has the highest correlation (0.518). Among the dimensions of organizational effectiveness, organizational climate dimension had the highest correlation with organizational commitment (0.595). (Table 2)

Table 1: Frequency and Mean Scores of Organizational Effectiveness and Organizational Commitment of Intensive Care Units Nurses

Demographic Variables		Frequency		Organizational Commitment	Organizational Effectiveness
		Number	Percent	Mean and Standard Deviation	Mean and Standard Deviation
Age (Year)	30 \geq	76	27.4	76.03 \pm 10.40	60.10 \pm 16.08
	31-35	83	30	75.75 \pm 11.91	53.75 \pm 15.41
	36-40	84	30.3	75.27 \pm 10.65	56.71 \pm 15.34
	41-45	19	6.9	73.21 \pm 11.80	55.18 \pm 13.50
	46-50	15	5.4	78.40 \pm 7.08	51.33 \pm 18.39
Sex	Female	231	83.4	75.74 \pm 10.84	57.51 \pm 16.38
	Man	46	16.6	75.11 \pm 11.22	55.39 \pm 11.43
Marital Status	Married	186	67.1	74.24 \pm 10.73	55.19 \pm 15.54
	Single	91	32.9	78.62 \pm 10.74	61.52 \pm 15.79
Degree of Education	Bachelor	271	97.8	73.83 \pm 11.51	57.23 \pm 15.68
	Masters	6	2.2	75.69 \pm 10.88	57 \pm 22.13
Employment Status	Formal	157	56.65	74.50 \pm 10.59	74.50 \pm 10.59
	Contracted	120	43.35	76.92 \pm 11.08	76.92 \pm 11.08
Work Experience (Total)	0-5	83	29.96	75.90 \pm 9.96	59.25 \pm 16.50
	6-10	115	41.51	75.66 \pm 12.24	56.79 \pm 16.95
	11-15	46	16.60	75.22 \pm 10.08	55.09 \pm 14.89
	16-20	22	7.94	73.41 \pm 9.45	55.09 \pm 9.87
	21-25	11	3.97	79.30 \pm 8.15	59.40 \pm 10.64
Work Experience	0-5	153	55.23	75.39 \pm 10.88	58.42 \pm 16.02

(Intensive Care Unit)	6-10	100	36.10	75.15 ± 10.75	56.54 ± 15.73
	11-15	17	6.13	80.24 ± 11.08	53.71 ± 14.72
	16-20	2	0.72	75 ± 19.79	41.5 ± 24.74
	21-25	5	1.80	78.20 ± 10.01	52.60 ± 7.66
Work Ward	ICU	87	31.4	74.28 ± 11.03	59.64 ± 21.34
	CCU	49	17.7	74.18 ± 10.95	52.31 ± 15.07
	NICU	29	10.5	75.48 ± 13.23	55.31 ± 11.56
	Angiography	9	3.2	79 ± 7.36	54.67 ± 7.38
	Burn	5	1.8	74.40 ± 2.88	48.60 ± 6.87
	Emergency	50	18.1	76.60 ± 10.43	57.22 ± 12.42
	ICU Heart	16	5.8	80.38 ± 10.30	61.06 ± 5.83
	Dialysis	32	11.6	77.19 ± 10.26	60.06 ± 10.86
Educational and Therapeutic Center	Beast	81	29.2	76.72 ± 8.34	62.73 ± 17.11
	Beheshti	54	19.5	73.39 ± 11.74	52.46 ± 17.04
	Farshchian	37	13.4	77.81 ± 11.04	60.41 ± 15.75
	Fatemiyeh	33	11.9	76.39 ± 13.95	57.18 ± 10.16
	Ekbatan	72	26	74.69 ± 10.96	57.22 ± 15.80
Overall Mean of Organizational Commitment and Organizational Effectiveness				75.65 ± 10.87	57.22 ± 15.80

Table 2: Correlation Between Organizational Commitment Organizations and Organizational Effectiveness in nurses ($p \leq 0.01$)

Organizational Effectiveness Organizational Commitment	Leadership	Satisfaction	Organizational Atmosphere	Organizational Effectiveness
1. Emotional	0.412	0.417	0.471	0.457
2. Continuous	0.289	0.257	0.330	0.311
3. Normative	0.472	0.472	0.528	0.518
4. Organizational Commitment	0.525	0.512	0.595	0.575

Discussion

In this study, the average age of the nurses was 32 and most of them were females and married with bachelor's degree. The average total work experience was 8.59 years, and work experience in the intensive care units had 5.3 years and most of them had official employment status. Most nurses were employed in the ICU and the least in the burn wards.

In this study, the organizational commitment of nurses in intensive care units was moderate, which was in line with other studies in Iran (37, 38). The high level of organizational commitment with the firm belief and acceptance of the organizational goals and values is the maximum effort for the organization and the desire for survival (11, 37). Increasing organizational commitment in intensive care unit nurses to enhance attachment and loyalty to the department and the workplace to provide quality care and continuous improvement is very important.

In this study, continuous commitment of nurses in intensive care units is consistent with other studies in Iran (39). Continuous commitment is associated with the benefits and costs of staying or leaving the organization, and usually employees with a high continual commitment remain in the organization as long as they leave the organization with a great deal of costs (11, 37). Educational and therapeutic center manager should increase the commitment of the nurses with conscientiousness and loyalty (emotional commitment) to cause them be more commitment than the past (40).

In this study, the emotional commitment of nurses in intensive care units with the results of studies in other countries is in the same direction (11). Usually, employees with a high emotional commitment are inclined to stay in the organization due to the feeling of belonging and emotional attachment and the pleasure of continuing membership (11, 37). Despite the difficult work, high workload, critical situations, and high risk of mortality in intensive care units, it seems that the feeling of pleasure and interest has been raised.

In this study, normative commitment of nurses in intensive care units is consistent with the results of a study conducted in Iran (41). The normative commitment is the obligation or the duty of the staff to stay in the organization against the organization's leave (11). It seems that a high normative commitment reduces the probability of leaving and shifting staff to the requirement of staying in nurses intensive care units. Conducting in-service training, division of work based on merit, continuous and fair evaluation of performance and attention to nurses' abilities and talents in intensive care units can play an important role in increasing their normative commitment (42).

In this study, the results indicate that the organizational effectiveness of the nurses in intensive care unit is interpreted in the moderate level, which is by studying Tseng and Sashma suri in a same direction (11, 43). Organizational effectiveness, the extent to which the organization meets its goals using specific resources, makes its goals to reality without waste of resources and worn out employees (11).

It seems that the managers of educational and therapeutic centers need to pay attention to the effectiveness of nurses' activities and to change the management style, such as competence and desire cause to creating inner satisfaction, happiness and persuasion .

In this study, leadership in organizational effectiveness of nurses in intensive care units is parallel with the study of Tseng (11). Leadership is a collaborative process of interaction of its effects on access to goals, often influencing staff by motivating and rejuvenating them by sharing leadership (44).

Managers of educational and therapeutic centers should strengthen leadership and management practices such as explaining the organization's vision and sharing it in achieving goals, providing the information, knowledge and methods needed to access it, creating a balance between conflicting interests of stakeholders in nurses, the intensive care units provide effective leadership effectiveness and, consequently, increase their effectiveness in the organization or educational and therapeutic centers.

In the present study, organizational climate dimension of the organizational effectiveness of nurses in intensive care units is consistent with the results of the Tseng & Ardan study (11, 31). Organizational climate is a large part that relates to employee perceptions of the workplace, the formal and informal leadership of the organization, and other internal organizational characteristics, in which the organization flourishes or is highlighted, and differs among organizations (45).

Haplin and Croft argue that organizational climate is an intervention in group spirit, enthusiasm, considerations, distance, influence and activity with emphasis on production (46). Educational and therapeutic centers should provide appropriate climate for nurses in the intensive care units by creating an appropriate organizational climate and improving their health and, consequently, increasing their effectiveness in the organization / educational and therapeutic centers.

In this study, the job satisfaction score of the organizational effectiveness of nurses in intensive care units with the results of Ardan & Kumar's study is in one direction (31, 47). In his study, Tseng also interpreted the decline in job satisfaction as a

reduction in satisfaction by remunerating or not receiving rewards (11).

Job Satisfaction is one of the most important factors in job success, which increases the efficiency and also the sense of individual satisfaction (48). Educational and therapeutic centers should increase satisfaction by controlling the internal factors (feeling of pleasure from work) and externally (rights and benefits and working environment relations) by increasing job satisfaction in nurses of intensive care units and, consequently, increasing their effectiveness in organization / Educational and therapeutic centers.

There is little research in relation to the correlation between organizational commitment and organizational effectiveness, especially in nurses of intensive care units (11, 32). In this study, there was a positive and significant relationship between organizational commitment and organizational effectiveness, which is in line with the study of Tseng (11). Educational and therapeutic center managers seem to use organizational commitment practice to enhance organizational effectiveness in intensive care unit nurses.

Conclusion

Organizational commitment can be viewed as an important antecedent factor for the organizational effectiveness of intensive care units nurses. The implementation of single nurses, women, higher education and the informal employment status are more appropriate and recommended to work in intensive care units.

Study Constraints

Among the research constraints, the first is the lack of generalizability of the results of the study to all nurses of intensive care units in Iran due to the small number of educational and therapeutic centers and specialist nurses. Second, nurses of intensive care units from the educational and medical centers and intensive care units did not have a clear perception as each educational and therapeutic center as an organization.

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