

# Studying the Correlation of Nurses Cultural Competency and patient Satisfaction in intensive care unit of hospitals affiliated to Kurdistan University of Medical Sciences in 2018

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## Abstract

**Introduction & Objective:** Cultural competence is the ability to communicate effectively with people of different cultures. Since the nurses deal with patients from different cultures, cultural competence is one of the factors that affect the quality of nursing care. One of the criteria for measuring the quality of nursing care is patient satisfaction. So the purpose of this study is to review the correlation between nurses' cultural competence and satisfaction of patients hospitalized in intensive care units of hospitals affiliated to Kurdistan University of Medical Sciences with the quality of nursing care in 2018. **Methods:** This descriptive correlation study was performed on 90 nurses and 270 patients in adult intensive care units of hospitals affiliated to Kurdistan University of Sciences in 2018 and quota sampling method was used. Four tools were used for data collection: Nurses Demographic Information Questionnaire, Nurses Cultural Competency Assessment Questionnaire, Patients Demographic Information Questionnaire, and Patient Satisfaction with Nurses Care Questionnaire. After obtaining informed consent, the questionnaires were distributed among the nurses and patients. After completing the questionnaires, the data were analyzed through analytical and descriptive statistical methods using SPSS software (version 22). **Findings:** Nurses included 30 men (33.3 %) and 60 women (66.7%) with age average: 32.11±6.12 and the patients included 142 men (47.4%) and 128 women (52.6%) with age average: 49.88±16.95. Most nurses had an average level of cultural competence (51.1%) and most patients had an average level of satisfaction (61.3%). Statistical analysis showed that there is a meaningful relation between cultural care knowledge with employment in more than one section and between attitude toward cultural care and the work section (P-Value<0.05). There was no statistically significant relation between nurses' cultural competence and patients' satisfaction (P-Value>0.05). Patients' satisfaction was statistically related to the age, length of hospitalization, ethnicity and religion of the patients (P-Value<0.05). **Conclusion:** Regarding the lack of relation between cultural competence and patient satisfaction in this study and the importance of patient satisfaction, it is suggested to identify other factors affecting patient satisfaction and to make the planning required to improve the patient satisfaction. One of the important factors in this field that seems to play a prominent role in our study is that the patients are not sufficiently aware of the duties and responsibilities of the nurses. This lack of awareness of the tasks could lead patients to have more expectations and failing to meet these expectations would lead to patient dissatisfaction.

**Keywords:** Cultural competency, Patient satisfaction, Nurses of intensive care unit

## INTRODUCTION

Culture is values, beliefs, traditions and symbols that shape one's lifestyle and is transmitted through interactions between individuals [1]. Cultural diversity is one of the essential characteristics of today's world and an influential factor in interpersonal interactions and social construction. Iranian society has historically had a multiethnic cultural, linguistic and religious context [2]. Another important issue is refugees, immigrants and international students in this country [3]. Important organizations face challenges due to this cultural diversity such as community health organizations which deal with patients from diverse languages and cultures; studies have shown that people's perceptions of health and disease are influenced by cultural factors [4]. It seems that

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cultural competence is an appropriate response to the diversity of ethnicity and culture in society. Competency means the ability to do any work in its best and effective way, and cultural competence is a set of knowledge, attitude and appropriate behaviors that work together in a system, organization and among the professions, enabling the individual to work effectively in different cultural contexts [2]. In medical professions, elements of cultural competence play an important role in reducing health inequalities and advancing health outcomes and affect the provision of health services as well because the medical sciences group deals with patients of different cultures and background [5, 6].

Nursing as the largest part of the professional forces at the forefront of providing services in the health-treatment system has wide and various roles and duties [7]. Their professional competence plays an important role in fulfilling the system's mission and quality of care [8].

The close relation between competence and concept of quality of care has also led to competence to have a unique place in nursing profession as a practical discipline [9]. The importance of cultural competence in three prominent areas of "health inequality, providing health services and quality of services provided" is significant [10]. Nurses should have the ability to communicate effectively with patients from different cultures so they could be aware of their patients' needs and understand what nursing actions are appropriate for them [11]. Therefore, the ability to take care for patients being aware of their cultural needs is an essential part of communication skills of nurses [12]. In order to provide good and effective care, nurses must pay attention to the patient's health and disease beliefs, the impact of religion on care decisions, language, values, and other cultural, social and economic factors effective on health [13].

Finally, it should be stated that cultural competence in nursing care could lead to patient satisfaction and positive outcomes [14]. Satisfaction is the care taker's judgment of how well his or her expectations are met. Patient satisfaction is also important for the staff in health and treatment centers and if they want to be successful in their profession, they must ultimately satisfy patients. Patient satisfaction is related to the patient commitment in taking and administering the prescribed medicine, continuation of the patient's referral at the prescribed time and patient's agreement to perform the necessary therapeutic actions. The higher the patient's satisfaction, the better the patient's physical and mental recovery; in addition, satisfied patients cooperate more effectively and show much adaptation to treatment.

In the competitive world of health services, patient satisfaction is increasingly important. Satisfaction is one of the aspects of one's health and ignoring the patient satisfaction, the health system operates contrary to its mission which is to respond to people's need for health [16]. The patient is the main customer of services and his / her

satisfaction may be partly indicative of the correct fulfillment of providing them. Therefore, the importance of measuring the patient satisfaction is quite clear as one of the fundamental criteria in determining the quality of services [16].

The present study was designed due to the lack of a similar study in the country. Also, it was conducted considering the existing cultural differences and the large numbers of patients come from Kurdish provinces of Iraq in Kurdistan province. On the other hand, intensive care unit in the hospital is known as throat for function control [17]. Thus the purpose of this study is to review the correlation between nurses' cultural competence and patient satisfaction in intensive care unit of hospitals affiliated to Kurdistan University of Medical Sciences in 2018.

## METHODS

### Design of Study

This descriptive-correlation study was carried out in 2018 throughout Kurdistan province. After getting the permissions required and coordination with the respective authorities, the researcher was present at the research sites three days a week, during various shifts. After expressing the objectives of the study and providing the participants with the necessary explanations, the sampling was done. Next, the questionnaires were distributed among the nurses and patients and they were requested to answer the questionnaire carefully. The participants were given sufficient time to complete the questionnaires. At the time of completing the questionnaire, the researcher was present at the site to respond to probable questions if required. It was tried not to interfere with nurses working hours and respond when they have less work and free time. Also the clinical status of patients was considered and it was attempted to ask them to complete a questionnaire when their health status was stable.

### Participants

The study population included hospitalized patients and nurses working in CCU, ICU and hemodialysis wards of hospitals affiliated to Kurdistan University of Medical Sciences (Sanandaj, Qorveh, Saqez, Baneh and Marivan hospitals). The criteria for the nurses were: having bachelor's degree in the field of nursing and higher and having at least one year of work experience in intensive care unit. Patients with at least 18 years of age, reading and writing literacy, complete knowledge of time, place and person, stable general condition and with the ability to collaborate were included in the study. Patients who were a member of treatment staff, patients who were hospitalized less than 3 days in intensive care units and patients with less than 3 months of dialysis were excluded. Sampling was done based on non-probability and quota sampling according to the number of nurses working in respective wards at all three morning, evening and night shifts; based on previous studies [18], at least 90 nurses were calculated. According to the study conducted by Gholjeh *et al.* 3 patients were selected per nurse, the patients who has used the relevant nurse's services for at least 2 days.

## Data Collection Tool

Data gathering was done using designed tools for nurses and patients. Tools related to the nurses included demographic information questionnaire and nurses' cultural competency questionnaire. Tools related to the patients included demographic information questionnaire and nursing care satisfaction questionnaire. Demographic information questionnaire of nurses and patients included questions about age, gender, marital status, education, ethnicity, religion, etc. Nurses' cultural competency assessment questionnaire consisted of 51 questions in 4 sub-scales of cultural care knowledge (11 questions), attitude towards cultural care (9 questions), cultural competence (12 questions), and readiness in cultural care (19 questions), on 5-point Likert scale from "strongly disagree" to "strongly agree". 5 points were considered for each response of strongly agree and 1 point was considered for each strongly disagree. The overall score of 51-109 was considered as poor cultural competence, 110-167 was considered as average cultural competence and 168-255 was considered as strong cultural competence [12]. Content validity of the questionnaire was certified by Bastami et al. and Cronbach's alpha value of 0.86 was reported [12]. The total predicted Cronbach's alpha of the questionnaire was 0.96. Patients' Satisfaction with nursing care questionnaire included 25 items out of which 7 items were related to technical-vocational sub-scale (questions: 12, 13, 15, 16, 18, 20 and 25), 12 items were related to confidence sub-scale and 7 items were related to patient training sub-scale. In this questionnaire each item was graded based on a 5-point Likert scale from strongly agree [5] to strongly disagree [1]. There were 14 positive items and 12 negative items. Scoring in positive items was like this: 5 points for each "strongly agree" and 1 point for each "strongly disagree". Scoring in negative items was reversed. Overall point less than 78 was considered as dissatisfied, 78-104 was equivalent to average and over 104 was considered as complete satisfaction [20]. This validity of the questionnaire was confirmed in the study of Joolae et al. and 0.92 was reported for its reliability.

## Ethical Considerations

Participants were given full explanations in this study and their informed consent was obtained. Participating in this research was optional and it was explained to the patients that if they do not participate in the research, it won't disrupt the process of receiving health care from the center. All the questionnaires were anonymous and numbered and participants were assured that their information will remain confidential with the investigation team. The plan was put forward at Ethics Committee of Shahid Beheshti University of Medical Sciences and received the ethics code: IR.SBMU.PHNM.1396.904.

## Statistical Analysis

Data analysis was performed using SPSS software (version 22). Mean, standard deviation, percentage and frequency were used to describe the data. Data were analyzed using

Pearson correlation, independent t-test and analysis of variance (Anova).  $P < 0.05$  was considered as the significant level.

## FINDINGS:

In this study, 90 nurses, including 30 male nurses (33.3%) and 60 female nurses (66.7%) with age average of  $32.11 \pm 6.12$  years were studied. The average of nurses' work experience was  $7.98 \pm 5.43$  years and the average of obligatory extra work hours for each nurse was  $59.70 \pm 34.29$  hours a month. 270 patients were studied, including 142 males (47.4%) and 128 females (52.6%), with age average of  $49.88 \pm 16.95$  and with average of duration of hospitalization:  $193.24 \pm 529.80$ . Other demographic variables of the nurses and patients studied are presented in Table 1 and 2 respectively.

**Table 1 - Frequency distribution of nurses working in intensive care units of hospitals affiliated to Kurdistan Medical Sciences University in 2018 in terms of demographic variables**

Variables	Frequency	percent	
<b>Center of Workplace</b>	Sanandaj	50	55.6
	Ghorveh	8	8.9
	Baneh	9	10.0
	Saghez	15	16.7
	Marivan	8	8.9
<b>Occupational Position</b>	Manager of Nursing	1	1.1
	Supervisor	0	0.0
	Head Nurse	6	6.7
	Nurse	83	92.2
<b>Work Shift</b>	Morning	16	17.8
	Night	0	0.0
	Turnover	74	82.2
<b>Employed in More than One Place</b>	Yeas	8	8.9
	No	82	91.1
<b>Section/Ward</b>	ICU	56	62.2
	CCU	18	20.0
	Hemodialysis	16	17.8
<b>Marital Status</b>	Single	34	37.8
	Married	56	62.2
	Other	0	0.0
<b>Education</b>	Bachelor's Degree	72	80.0
	Master's Degree	15	16.7
	PhD	3	3.3
<b>Ethnicity</b>	Persian	6	6.7
	Turkish	3	3.3
	Lor	0	0.0
	Kurdish	80	88.9
	Other	1	1.1
<b>Religion</b>	Shia	20	22.2
	Sunni	69	67.7
	Zoroastrian	0	0.0
	Christian	1	1.1
	Jewish	0	0.0
<b>Total</b>	<b>90</b>	<b>100.0</b>	

According to Table 1, most of the nurses studied were in Sanandaj (55.6%), at the position of nursing (92.2%), shift in

turnover and employed in ICU ward (62.2%); most of them worked only in one place (91.1%); also most of the nurses were married (62.2%), with bachelor's degree (80.0%), they were Kurds (88.9%) and Sunni (67.7%).

**Table 2** - Frequency distribution of hospitalized patients in ICU of hospitals affiliated to Kurdistan University of Medical Sciences in 2018 in terms of demographic variables

Variables		Frequency	percent
Center of Hospitalization	Sanandaj	150	55.6
	Ghorveh	24	8.9
	Baneh	27	10.0
	Saghez	45	16.7
	Marivan	24	8.9
Hospitalization Section/Ward	ICU	168	62.2
	CCU	54	20.0
	Hemodialysis	48	17.8
Record of Hospitalization	Yes	137	50.7
	No	133	49.3
Marital Status	Single	58	2.5
	Married	176	65.2
	Other	36	13.3
Education	Illiterate	81	30.0
	Primary School	32	11.9
	Junior High School	34	12.6
	High School		
	Diploma & Associate's Degree	79	29.3
	Bachelor's Degree and Higher	44	16.3
Ethnicity	Persian	26	9.6
	Turkish	30	11.1
	Lor	7	2.6
	Kurdish	204	75.6
Religion	Other	3	1.1
	Shia	64	23.7
	Sunni	201	74.4
	Zoroastrian	3	1.1
	Christian	2	0.7
	Jewish	0	0.0
<b>Total</b>		<b>270</b>	<b>100.0</b>

According to Table 2, most of the patients under study were hospitalized in Sanandaj hospital (55.6%) at ICU ward (62.2%). Most of them had previous record of hospitalization (50.7%). Most of them were married (65.2%), illiterate (30.0%), Kurdish (75.6%) and Sunni (74.4%).

**Table 3.** Average score of cultural competency and distribution of competency level of nurses working in intensive care units at hospitals affiliated to Kurdistan University of Medical Sciences in 2018

Scales of Cultural Competency	Score Standard Deviation ± Mean	Maximum-Minimum
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Knowledge of Cultural Care	38.66±7.06	55-11
Attitude towards Cultural Care	30.18±5.75	44-9
Cultural Competency	39.00±8.64	60-12
Readiness in Cultural Care	58.20±19.55	95-19
<b>Total</b>	<b>166.05±32.08</b>	<b>246-51</b>
<b>Level of Cultural Competency</b>	<b>Frequency</b>	<b>Percentage</b>
Weak (51-109)	4	4.4
Average (110-167)	46	51.1
Strong (168-255)	40	44.4
<b>Total</b>	<b>90</b>	<b>100.0</b>

Based on Table 3, the average score of cultural competency and its scales in nurses as well as the distribution of nurses based on the level of cultural competency has been estimated. As it is obvious, most nurses studied have an average level of cultural competency (51.1%). The average of overall score of nurses' cultural competency was within the average range.

According to Table 4, the average score of satisfaction and its scales in patients as well as the distribution of patients based on the level of satisfaction has been shown. This table shows that the majority of patients studied had an average level of satisfaction (61.3%) and the average of overall score of patient satisfaction in this study was within the average range.

**Table 4.** Average score of satisfaction and distribution of satisfaction level of the patients hospitalized in ICU at the hospitals affiliated to Kurdistan University of Medical Sciences in year 2018

Scales of Satisfaction	Score Standard Deviation ± Mean	Maximum-Minimum
Technical-Vocational Care	23.33±4.51	35-7
Confidence	39.90±7.78	60-12
Patient Training	22.76±4.80	35-7
<b>Total</b>	<b>86.00±16.04</b>	<b>126-26</b>
<b>Level of Satisfaction</b>	<b>Frequency</b>	<b>Percentage</b>
Dissatisfied (<78)	70	25.8
Average (78-104)	166	61.3
Full Satisfaction (>104)	34	12.5
<b>Total</b>	<b>270</b>	<b>100.0</b>

**Table 5.** Statistic of correlation Between Nurses 'Cultural Competency and Patients' Satisfaction with Nursing Care in ICU at Hospitals affiliated to Kurdistan University of Medical Sciences in 2018 divided by domain

Scales of Cultural Competency	Scales of Satisfaction			Total
	Technical-Vocational Care	Confidence	Patient Training	
Knowledge of Cultural Care	r=0.03	r=0.068	r=0.094	r=0.070

	P=0.738	P=0.526	P=0.377	P=0.510
Attitude towards Cultural Care	r=0.018	r=0.115	r=0.131	r=0.100
Cultural Competency	P=0.865	P=0.278	P=0.218	P=0.350
	r=0.016	r=0.020	r=0.048	r=0.019
Readiness in Cultural Care	P=0.878	P=0.855	P=0.650	P=0.860
	r=0.014	r=0.030	r=0.076	r=0.033
Total	P=0.869	P=0.778	P=0.477	P=0.760
	r=0.000	r=0.056	r=0.095	r=0.055
	P=0.998	P=0.601	P=0.373	P=0.609

Table 5 shows that there is no significant relation between nurses' cultural competency (and its subscales) and patients' satisfaction with nursing care (and its Subscales)  $P>0.05$ . Statistical analysis showed that there was a significant relation between nurses' cultural competency and age, work experience and overtime ( $P>0.05$ ).

Table 6 shows the relation between other demographic variables and cultural competency. This table shows that there is no statistically significant relation between demographic variables and cultural competency ( $P>0.05$ ).

**Table 6.** Comparison of average score of cultural competency based on demographic variables of nurses working in ICU at the hospitals affiliated to Kurdistan University of Medical Sciences in 2018

Variables	Score of Cultural Competency	Statistical Test			
Occupational Position	Manager of Nursing Supervisor Head Nurse	86.00±0.00 185.50±30.15 164.42±32.04	P=0.253		
Work Shift	Nurse Morning Turnover	166.05±32.08 169.62±28.51 165.28±32.92		P=0.626	
	Employed in more than one place	Yes No			183.00±42.16 164.40±30.70
Work Section/Ward	ICU CCU Hemodialysis	170.67±28.48 155.88±36.69 161.31±37.11	P=0.191		
	Sex	Male Female		165.50±34.67 166.33±31.00	P=0.908
		Marital Status		Single Married	
Education	Bachelor's Degree Master's Degree PhD		164.90±32.10 175.40±30.19 147.00±39.73	P=0.301	
	Ethnicity	Persian Turkish Kurdish Other	145.00±27.77 148.00±46.13 168.07±31.65 185.00±0.00		P=0.242
		Religion	Shia Sunni Christian		

There was no statistically significant relation between patient satisfaction and age ( $P = 0.025$ ) and duration of hospitalization ( $P = 0.043$ ). In table 7, the relation between other demographic variables and patient satisfaction is presented. This table shows that there is a significant statistical relation between ethnicity ( $P<0.029$ ) and religion ( $P<0.002$ ) with patient satisfaction but in other cases, there was no significant relation ( $P >0.05$ ).

**Table 7.** Comparison of average score of cultural competency based on demographic variables of nurses working in ICU at the hospitals affiliated to Kurdistan University of Medical Sciences in 2018

Variables	Score of Patients Satisfaction Standard Deviation±Mean	Statistical Test			
Hospitalization Section/Ward	ICU CCU	84.56±16.75 87.94±14.98	P=0.159		
	Hemodialysis	Yes No		88.87±14.25 86.40±16.08	P=0.677
Sex		Male Female	86.40±16.08 85.59±16.05	P=0.575	
	Marital Status	Single Married Other	86.58±16.23 85.48±15.91 83.48±13.89		P=0.062
Education		Illiterate Primary School Junior High School High School Diploma & Associate's Degree Bachelor's Degree & Higher	85.73±16.56 91.38±15.87 88.51±14.43 86.00±15.87 86.58±17.67 84.12±16.03	P=0.465	
		Ethnicity	Persian Turkish Lor Kurdish Other		
	Religion		Shia Sunni Zoroastrian Christian		84.31±17.72 84.31±17.72 79.34±17.56 88.09±15.16 91.00±3.00 82.00±4.24

## DISCUSSION:

In the present study, the correlation between nurses' cultural competence and satisfaction of patients hospitalized in ICU with the quality of nursing care was evaluated.

The findings of this study showed that there is no significant relation between any of the nurses' demographic variables with their overall cultural competency. There was only a significant relation between the variable of cultural care

knowledge and employment in more than one place as well as between work section and attitude towards cultural care. In the study conducted by Darvish *et al.*, cultural intelligence was the same in different age groups. Also, the cultural intelligence of nurses at different educational levels was the same [21]. There was a significant correlation between age and cultural competency in the study conducted by Ahanchian *et al.* [22]. In Bastami *et al.* study, there was a significant relation between participants' cultural competency and their work experience [12]. In Bastami *et al.* study, the cultural competency of women reported more than men's [12]. Anyway in the last study, the population of women is larger than men, and one of the reasons for higher cultural competency, according to a study conducted by Bastami *et al.*, this may be the case for women's higher competency than men [12]. Contrary to the above-mentioned study, Moulder *et al.* reported a higher cultural competency among male nursing students, and the possible reason for this finding was the higher men's work experience [23]. The lack of significant relation between most of variables of cultural competency and demographics variables of our study may be due to data scattering, or inappropriate distribution among the groups.

Statistical results of this study showed that there is a positive and significant correlation between patient satisfaction with age and duration of hospitalization. Also, there was a significant relation between patients' satisfaction and the variables of ethnicity and religion, but there was no significant relation between patients' satisfaction and other variables. The relation between patients' satisfaction and their ethnicity and religion may be due to this fact that most of our study population was Kurds and Sunnis. Anyway, according to the results of Bredart *et al.* study, geographical location and culture are two important predictors of patient satisfaction [24]. The relation between age and satisfaction could be observed in the difference between the young people expectations and the elderly. Younger people have more social connections and their access to information resources is also greater, so they are able to see the system flaws and defects more clearly and are usually less satisfied. As for the relation between the duration of hospitalization and satisfaction, it could be justified that people who stay longer, adapt themselves to the existing conditions more. Consistent with our study, Papastavrou *et al.* showed that patients with longer duration of hospitalization were more satisfied [25].

In Joolae *et al.* [20], Lee *et al.* [26] and Quintana *et al.* [27], there was no significant relation between age of patients which is in conflict with our study. In the study conducted by Gholjeh *et al.*, age, social class, and patient satisfaction were not correlated, but there was a correlation between the hospitalization ward, marital status, gender, patient's education and his satisfaction [19]. In Joolae *et al.* study [20], patients' satisfaction was inversely correlated with their level of literacy, so that people with college education had the higher level of dissatisfaction.

Based on the findings of this study, the majority of nurses (51.1%) had an average level of cultural competency. In agreement with our study, Kardong *et al.* *et al.* examined nurses' behavior with the patients from four different cultures in a study conducted in Texas, USA. The results showed that the nurses' cultural competency is at an average level [28]. Similarly, Bastami *et al.* in their study conducted in Ilam showed that most nurses had average level of knowledge in the field of cultural competency. According to them the only reason was frequent exposure of nurses to patients from different cultures [12]. Therefore, in our study, since nurses in Sanandaj were in contact with different cultures, including Iraqi Kurds, the frequent exposure of nurses with patients from different cultures could be considered as a good reason for this. Bond *et al.* in the study conducted on the nurses in the southwestern United States reported nurses' relatively low knowledge of specific cultural groups and they showed the need for the training required to eliminate differences in relation to the concepts such as racism, cultural diversity, ethnicity and concepts like this, which is not compatible with the results of the present study, perhaps because of the prevailing cultural differences in the communities under study, because culture itself is something that could vary dramatically from region to region [28].

Findings of this study showed that most of the patients had average satisfaction. In the studies conducted by Joolae *et al.* in different cities [29] and Gholjeh *et al.* study conducted in Zahedan [19] also most patients had average satisfaction with nursing services provided. However, in the study conducted by Sheikh *et al.* in Qazvin, most hospitalized patients were quite satisfied with nursing services [30]. Also Seif Rabiei *et al.* study in Hamadan and Seidi *et al.* study in Qom [32] indicated that most patients were satisfied with the services provided. Comparing the studies conducted during different years demonstrates that patients' satisfaction has declined in recent years, perhaps due to the fact that patients becoming more aware of their rights and their expectations of health care system are increasing. On the other hand it is possible that it is related to the decline in the quality of services provided, a reflection of the lack of nursing staff and dissatisfaction of nurses with their work conditions. Therefore, the causes of patients' dissatisfaction should be identified and their rights and expectations should be considered more than before. Compared to the studies done in other countries, the study conducted by Cho *et al.* in Seoul suggests that most of patients are fully satisfied with the services provided [33]. This is also the case in the Chan *et al.* study in Hong Kong [34]. Perhaps more patient satisfaction in other countries is due to the differences in work conditions and the facilities available in those countries. Also, management system attention to factors that may cause patients' dissatisfaction and trying to address these factors in order to remove them is another serious issue in many advanced health care systems.

In general it could be stated that although the nurses in this study had relatively good cultural competency, the patients were relatively dissatisfied. That is, patient satisfaction did not change and was not responsive to the nurses' cultural competency. In support of these findings, statistical analyzes indicated no significant correlation between nurses' cultural competency (and its subscales) and patients' satisfaction (and its subscales) with nursing care. Contrary to the findings of our study, in Papastavrou *et al.* [25] study as well as Tang *et al.* study [35], there was a significant correlation between nurses' cultural competency and patients' satisfaction.

However, compatible to our study in the studies conducted by Darvish *et al.* [21], Intelligence *et al.* [36], Kazemi *et al.* [37] and Rahiminia *et al.* [38], there was no significant correlation between cultural intelligence and nurses' performance. Therefore, in our study other factors were more effective than cultural competency and had higher impact on the quality of nursing services and thus on patient satisfaction. Peyrovi stated in his study that patient satisfaction with the services provided is a very serious and complex issue that is affected by various factors which could not be ignored [39]. One of these factors is patients' unawareness. Studies have shown that patient training is one of the dimensions of patient care. Patient education could play an important role in promoting quality of care, increasing patient adherence to treatment and patient satisfaction [40].

## CONCLUSION:

The nurses in this study had average cultural competency. Patients in this study also had average satisfaction. However, there was no significant correlation between nurses' cultural competency and patients' satisfaction. There was a significant relation between the variables of cultural care knowledge and employment in more than one place and also between work section and attitude towards cultural care. Patients' age, duration of hospitalization, ethnicity and religion were effective factors on satisfaction. Regarding the lack of relation between cultural competency and patient satisfaction in this study and the importance of patients' satisfaction, it is suggested to identify other factors affecting patient satisfaction in further studies.

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## Conflict of Interests:

The authors of the article have not expressed any conflict of interest.

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