Journal of Positive Psychology & Wellbeing
2022, Vol. 6, No. 3, 261 – 274

http://journalppw.com
ISSN 2587-0130

Determinants of Patient Satisfaction in Coronary Care: Insights from Saudi Arabia

Faisal Alasmari[1], Mohmmad Hazazi[2], Hawazin Alhawsaw[3], Marwan Hawsawi[4], Hadeel Alhawsaw[5], Naif Alduaiji[6]

[1]*Nursing Research and EBP Department, King Abdullah Medical City*
[2]*Case Manager Department, King Abdullah Medical City*
[3]*Nursing Quality and Patient Safety Department, King Abdullah Medical City*
[4]*Nursing Off Duty Manager Department, King Abdullah Medical City*
[5]*Cardiac Surgery Department, King Abdullah Medical City*
[6]*OR Service Administration Nursing, King Abdullah Medical City*

Abstract

Background: Patient satisfaction with nursing care is considered one of the most important indicators used to measure the quality of care provided in hospitals. Nurses are the largest group of healthcare professionals. Therefore, nursing care plays an important role in determining the level of patient satisfaction.

Objectives: This study aimed to measure the level of patient satisfaction with nursing care in Coronary Care Units (CCU), and to determine the effect of the sociodemographic variables on the level of satisfaction.

Methods: A quantitative, non-experimental, descriptive cross-sectional design. A nonprobability convenience sampling approach was used to recruit 148 participants from the coronary care units of the two invited hospitals.

Results: The key findings of this study were that patients generally had high levels of satisfaction with nursing care. The demographic factors of the patients did not affect patient satisfaction. Patient-specific factors, such as the duration of admission and history of previous hospitalisation, did not impact the satisfaction of the patient.

Conclusion: Coronary care patients expressed a very high level of satisfaction regarding the nursing care provided. Nurses need to pay a greater level of attention to enhancing their performance in some of the aspects that were scored lowly by patients. Nurses should improve on providing information to the patient, taking into account patient opinions, and responding quickly to patient calls.

Keywords*: Coronary Care Units, Coronary Disease, Nursing care, Nursing, Saudi Arabia, patient satisfaction, Patient Preference.*

Introduction

A significant number of authors have ascertained that the satisfaction of patients with nursing care defines how they are satisfied with hospitalization experiences (1, 2). Patient satisfaction with nursing care is considered an important indicator of the overall hospital quality of care provided and considered a method of evaluating the quality of hospital

health care services (3, 4). Assessing whether patients are satisfied with nursing care or not is vital to meet patients' health needs (5). Moreover, satisfied patients will contribute to more compliance with treatment (6) and will reduce the rate of readmission (7). Additionally, it has been found that patients with high satisfaction levels of nursing care will likely recommend the hospital to friends and family, and seek treatment at the same hospital in the future (8). Shinde and Kapurkar (5) agree, adding that satisfied patients will keep a continuous relationship with the hospital. In contrast, the patient who is less satisfied with the care they receive will more likely not use the hospital again, potentially leading to financial losses for the hospital (5). Patient satisfaction is measured in terms of nursing care because nurses and patients are regularly in contact and since nurses play a role as the liaison between the patient and other health care practitioners (9). The perceptions of patients regarding the care provided by nurses are the strongest predictor of behavior-related perspectives and it determines the chances of returning to a hospital after treatment or the intentions recommending the same facility to other patients (10).

The process of measuring the level of patient satisfaction is complex and is impacted by many variables (11). Some of the factors that have an effect on patient satisfaction include nurse shortage, patient's health condition, and other sociodemographic factors (12). Additionally, how patients perceive individualized care is equally an important factor in the evaluation process of patient satisfaction (13). In Saudi Arabia, one of the factors affecting patient satisfaction may be the high level of nursing shortages associated with turnover, cultural diversity, and lack of experience of newly employed nurses (15). Moreover, another factor that has been found to affect patient satisfaction is that the majority of nurses working in hospitals do not speak Arabic (16, 17). In addition to the previous factors, some researchers found that aspects such as the way nurses introduce themselves and pass information to patients have negative effects on patient satisfaction (18-20). However, the actual impact of these factors is unclear due to the paucity of studies in Saudi Arabia. Therefore, it is necessary to carry out more studies about patient satisfaction related to nursing care in Saudi Arabia, as this kind of research could help to identify factors that influence levels of satisfaction, and may improve the quality of nursing care (21).

Patient satisfaction involves several dimensions such as the technical nature of care in terms of convenience, the art of care, associated costs, resources available, physical and environmental organization, care outcomes, and continuity (6,7). In this case, the process of assessing the satisfaction of patients is complex. Therefore, the process should involve a comprehensive, reliable, and valid instrument for the assessment. It is important to note that using different tools to measure the satisfaction of the patients could lead to varied outcomes of satisfaction (8,9,10). A systematic review by Crow, Cage (14) described the controversy regarding the value and reliability of surveys about patient satisfaction across different studies and highlighted how a significant number were had methodological issues (14). Furthermore, Factors such as the wording of the questionnaires can impact the responses and high satisfaction for personal referent factors was shown (14)."The lack of conceptual clarity and unresolved measurement challenges" are the two concerns that impact the patient satisfaction measurement standardization (11).

In Saudi Arabia, the MOH Statistical Yearbook revealed that in 2010 42% of non-communicable diseases were caused by CVDs (22). Additionally, the report indicated that primary health centers provided treatment for 50,213 male and 42,790 female patients with cardiac diseases (22). In the same year, ischaemic and rheumatic heart diseases affected 167,499 and 140,322 individuals, respectively (22). The vulnerability of cardiac patients was discovered to be especially high, and that their multi-level care needs must be taken into account when attempting to understand how satisfied they are with care received (23)

Globally, only a small amount of research has been conducted in coronary care units, with

none in Saudi Arabia. This study aims to address this lack of information, by identifying factors affecting patient satisfaction levels in coronary care units. Further, the study data will provide nursing managers with important information about factors that contribute to patient satisfaction and dissatisfaction. This study aims to measure the level of patient satisfaction with nursing care in CCUs and to examine the effect of sociodemographic on the level of patient satisfaction.

Method

Design

This was a descriptive cross-sectional survey design study.

Population and recruitment

The study was consisting of cardiac patients hospitalized in two Coronary care units between 26 July 2016 and 4 September 2016. There were 148 participants recruited from the CCUs of the two invited hospitals using a nonprobability convenience sampling strategy. All patients participated voluntarily. The inclusion criteria were above the age of 18 years, admitted to a coronary care unit with a coronary condition, hospitalized for over 24 hours before answering the questionnaire, conscious and well oriented, and able to consent to participate in the study. The exclusion criteria patients who were under the age of 18 years and had cognitive or physical impairment were excluded from the study. Those who did not have a cardiac condition and those who were too unwell to participate were also excluded from the study.

Data collection process

Scheduled meetings were held with the nurse managers and nurses in coronary care units of both hospitals to explain the aim of the study and the process of data collection. An advertising poster, questionnaire, and explanatory statement were placed together with a sealable envelope on the patients' lockers. An explanation was provided for 148 patients who were post-24 hours in CCU, and whom the nurse manager identified as well enough to participate in the survey. The explanatory statement provided information about the aim and details of the study.

Instrumentation

Data was collected using the Patient Satisfaction with Nursing Care Quality Questionnaire (PSNCQQ) (24). The PSNCQQ was translated to Arabic by a professional translator in Mecca. The PSNCQQ was selected because it has been used in many studies as a valid and reliable instrument (24-26). The PSNCQQ consists of 19 items designed to measure satisfaction with nursing care, as well as 3 additional questions developed to measure the total satisfaction with nursing care provided during the hospital stay, total satisfaction with the quality of care, and the possibility of hospital recommendation to relatives and friends in the future (24). The PSNCQQ is rated on a Five-Point Likert-type scale ranging from 1 (poor), 2 (fair), 3 (good), 4 (very good), 5 (excellent) (24). The scale was used on each question.

The internal consistency of PSNCQQ (24) was first measured using the Cronbach alpha and total item correlation on 1041 patients. The Cronbach's alpha estimation for the instrument was 0.97, and the total item correlation ranged from 0.61 to 0.89. In this study, the 23-item questionnaire was tested for internal consistency by using the Cronbach's alpha test of reliability and it showed that the questionnaire had a reliably very good internal consistency with all the 23-items, Cronbach's alpha= 0.90, N= 148.

In this study, validity was measured by conducting the small pilot test in both hospitals. The purpose of the pilot test was to assess the clarity of instructions, participants' understanding of the questions, and to determine the time needed to complete the questionnaire. Fifteen patients from Hospital B and 10 patients from Hospital A were recruited to respond to the PSNCQQ survey (pilot). The responses of those participants were not included in the main study. The result showed

that the time needed to complete the questionnaire was approximately 15 minutes.

Ethical considerations

Ethical approval was also obtained from both Hospitals.

Data Analysis

IBM SPSS statistics for windows, version 21, and IBM MS software was used to enter, store, and analyze data in this study. Descriptive and inferential statistics were performed on the satisfaction questionnaire. Means and standard deviations were used to describe the continuous variables, while frequencies and percentages were used to describe the categorical and binary variables. Moreover, Mann-Whitney U and Kruskal-Wallis were used to explore the main effects of key patient demographic variables and patient admission characteristics on Patient's Satisfaction with the nursing scale, as a dependent variable when assessed in a bivariate manner. Kruskal-Wallis was used to test the differences between levels of categorical variables of two or more groups, while Mann-Whitney U was used for binary categorical variables. Spearman Rank Correlation coefficient was used to test the correlation between the variables. Cronbach's alpha test of reliability was used to test internal consistency.

Results

Patients' demographic characteristics

Of 181 invited CCU patients, 148 agreed to participate from two hospitals giving a response rate of n= 148 at 81%. The typical patient was a 50+year old married elementary-educated male, who stayed 3-4 days and had been previously hospitalized. See Table 4.1 for details.

Table 4.1 -Descriptive Statistics of participants Characteristics.

	N	***Percentage %***
HOSPITAL		
Hospital A	45	30.4
Hospital B	103	69.6
AGE		
26-35 Yrs.	11	7.4
36-49 Yrs.	20	13.5
50 Yrs. or more	117	79.1
SEX		
Male	88	59.5
Female	60	40.5
LENGTH OF STAY		
1-2 Days	18	12.2
3-4 Days	54	36.5
5-6 Days	30	20.3
=>7 days	46	31.1
MARITAL STATUS		
Married	144	97.3
Single	4	2.7
EDUCATIONAL LEVEL		

Elementary	85	57.4
Intermediate	27	18.2
Secondary	13	8.8
Higher	23	15.5
PREVIOUSLY HOSPITALISED		
Yes	76	51.4
No	72	48.6

Patient satisfaction with the quality of nursing care

It is observed that the greatest proportion of patients had very high levels of satisfaction with the quality of nursing care that they received. As can be seen in Table 4.2 below the means and standard deviations for all these items were computed then ranked in descending order based on the mean. The top five rated items in descending order were as follows: The Nurses skill and competence, next was the attentiveness of the Nurses to the patient condition, this was followed by the concern and the and caring by these nurses, then was the Privacy Provisions for patients y by nurses and the fifth-ranked Nursing quality item was the overall quality of care the patient received during their stay. The bottom rated items in an ascending rank from the least to higher were, as can be noted in the Table 4.2 bottom lines, as follows: the bottom most-rated item was the information provided by Nurses, followed by Recognition of the patients' opinion, next was the clarity of information given to patients by nurses and the nurses timely attendance to patient calls and the fifth bottom rated item was the nurses' willingness to involve the family and carers in the patient's care plan. The rest of the Nursing quality rating items were in between the bottom and the top-rated item.

Table 4.2 Patient's Perceptions of Satisfaction with the Nursing Quality of Care.

Rank	*PSNCQQ items*	*Mean (SD)*	*Sum (Excellent + very Good)*	*Good n (%)*	*Fair n (%)*	*Poor n (%)*
1	14. Skill and Competence of Nurses: How well things were done, like giving medicine and handling Ivs	4.6 (0.7)	143 (96.6%)	1 (0.7%)	2 (1.4%)	2 (1.4%)
2	8. Attention of Nurses to Your Condition: How often nurses checked on you and how well they kept track of how you were doing.	4.5 (0.8)	137 (92.6%)	8 (5.4%)	1 (0.7%)	2 (1.4%)
3	7. Concern and Caring by Nurses: Courtesy and respect you were given; friendliness and kindness.	4.5 (0.6)	138 (93.2%)	9 (6.1%)	9 (6.1%)	1 (0.7%)
4	17. Privacy: Provisions for your privacy by nurses.	4.4 (0.8)	130 (87.8%)	14 (9.5%)	2 (1.4%)	2 (1.4%)
5	21. Overall quality of care and services you received during your hospital stay	4.4 (0.8)	126 (85.1%)	17 (11.5%)	5 (3.4%)	0
6	23. On the basis of nursing care I received, I would recommend this hospital to my family and friends	4.4 (0.9)	124(83.8%)	18 (12.2%)	2 (1.4%)	4 (2.7%)
7	12. Helpfulness: Ability of the nurses to make you comfortable and reassure you.	4.3 (0.8)	127 (85.8%)	16 (10.8%)	4 (2.4%)	1 (0.7%)
8	22. Overall quality of nursing care you received during your hospital stay	4.3 (0.9)	122 (82.4%)	19 (12.8%)	5 (3.4%)	2 (1.4%)
9	16. Restful Atmosphere Provided by Nurses: Amount of peace and quiet.	4.3 (0.9)	120 (81.1%)	21 (14.2%)	4 (2.7%)	3 (2%)

10	15. Coordination of Care: The teamwork between nurses and other hospital staff who took care of you	4.2 (0.9)	128 (86.5%)	10 (6.8%)	6 (4.1%)	4 (2.7%)
11	10. Consideration of Your Needs: Willingness of the nurses to be flexible in meeting your needs.	4.2 (0.7)	125 (84.5%)	21 (14.2%)	2 (1.4%)	0
12	3. Ease of Getting Information: Willingness of nurses to answer your questions.	4.2 (1)	122 (82.4%)	15 (10.1%)	8 (5.4%)	3 (2%)
13	20. Coordination of Care after Discharge: Nurses efforts to provide for your needs after you left the hospital.**	4.2 (0.9)	108 (73%)	21 (14.2%)	3 (2%)	3 (2%)
14	2. Instructions: How well nurses explained how to prepare for tests and operations.	4.2 (0.9)	118 (79.7%)	24 (16.2%)	4 (2.7%)	2 (1.4%)
15	5. Involving Family or Friends: How well the nurses kept them informed about your condition and needs.	4.1 (1)	119 (80.4%)	19 (12.8%)	5 (3.4%)	5 (3.4%)
16	11. The Daily Routine of the Nurses: How well they adjusted their schedules to your needs.	4.1 (0.8)	119 (80.4%)	24 (16.2%)	3 (2%)	2 (1.4%)
17	18. communication in Arabic: ability of nurses to communicate with you in Arabic?	4 (1)	114 (77%)	20 (13.5%)	10 (6.8%)	4 (2.7%)
18	19. Discharge Instructions: How clearly and completely the nurses told you what to do and what to expect when you left the hospital.*	4 (0.8)	112 (75.7%)	21 (14.2%)	3 (2%)	2 (1.4%)
19	6. Involving Family or Friends in Your Care: How much they were allowed to help in your care.	4 (0.9)	108 (73%)	32 (21.6%)	6 (4.1%)	2 (1.4%)
20	13. Nursing Staff Response to Your Calls: How quick they were to help.	3.7 (1.2)	96 (64.9%)	30 (20.3%)	12 (8.1%)	10 (6.8%)
21	1.Information You Were Given: How clear and complete the nurses' explanations were about tests, treatments, and what to expect	3.2 (0.9)	43 (29.1%)	77 (52%)	26 (17.6%)	2 (1.4%)
22	9. Recognition of Your Opinions: How much nurses ask you what you think is important and give you choices.	3.1 (1.1)	43 (29.1%)	64 (43.2%)	33 (22.3%)	8 (5.4%)
23	4. Information Given by Nurses: How well the nurses kept them informed about your condition and needs.	2.7 (1)	30 (20.3%)	53 (35.8%)	54 (36.5%)	11 (7.4%)

*10 (6.8%) were missing. ** 13 (8.8%) were missing due to no discharge at the time of assessment.

Patients' demographic characteristics and patient satisfaction.

Table 4.3 shows the relationship between patient satisfaction and demographic characteristic. The results showed that patients in Hospital B (mean= 4.2, SD= 0.4 / median) perceived significantly greater satisfaction than those cared for in Hospital A (mean= 3.8, SD= 0.6), U= 4.31, $p<0.001$). Further, there is no statistical significance between gender, age, history of hospitalization, length of stay, level of education, and perceptions of satisfaction in this sample.

Table 4.3 Differences on PSNCQQ across demographic characteristics of participants

	n	*Mean (SD) PSNCQQ*	*test statistic*	*P-value*
HOSPITAL				
Hospital A	45	3.8 (0.6)	U(148) =4.31*	<0.001
Hospital B	103	4.2 (0.4)		
AGE				
26-35 Yrs.	11	4.4 (0.3)	H (2)=4.6**	0.103
36-49 Yrs.	20	4 (0.7)		
50 Yrs or more.	117	4.1 (0.5)		
SEX				
Male.	88	4 (0.6)	U(148) =0.83	0.408
Female	60	4.1 (0.4)		
LENGTH OF STAY				
1-2 Days	18	4.2 (0.6)	H (3)=1.914	0.590
3-4 Days.	54	4.1 (0.4)		
5-6 Days	30	4 (0.6)		
=>7 days	46	4.1 (0.5)		
MARITAL STATUS			Not valid to compare the two groups due to an imbalance in counts within groups.	
Married.	**144**	**4.1 (0.5)**		
Single	**4**	**3.2 (1.2)**		
EDUCATIONAL LEVEL				
Elementary	85	4.1 (0.3)	H (3)=6.92	0.074
Intermediate	27	3.9 (0.8)		
Secondary	13	3.8 (0.3)		
Higher	23	4.1 (0.6)		
PREVIOUSLY HOSPITALISED				
Yes	76	4 (0.6)	U(148)=1.4	0.172
No	72	4.1 (0.4)		

* U= Mann-Whitney U standardised test value, H= Kruskall-Wallis Standardised test statistic value.

Table 4-4 Spearman's Rho correlation between (PSNCQQ) and overall rating of nursing, services, and willingness to recommend the hospital.

	19-item PSNCQQ	Quality of services	Quality of Nursing care
Q21 Overall quality of care and services you received during your hospital stay.	.627**		
Q22 Overall quality of nursing care you received during your hospital stay.	.619**	.686**	
Q23 On the basis of nursing care I received, I would recommend this hospital to my family and friends.	.567**	.727**	.559**

PSNCQQ and overall rating of nursing, services, and willingness to recommend the hospital

A Spearman's Rho correlation coefficient showed that greater patient satisfaction with the overall quality of care and services was significantly associated with greater Patient Satisfaction with Nurses Quality of Care (PSNCQQ), Rho= 0.63, $p<0.01$. Likewise, greater Patient Satisfaction with Nurses Quality of Care (PSNCQQ) was associated with a greater willingness of patients to recommend their admitting hospital to their friends and loved ones, Rho= 0.57, $p<0.01$. See table 4.4.

Discussion

The outcome of this study ascertained the existence of disparity as well as concurrence with previously national and internal published literature, which have been expounded in the following subsections.

Level of satisfaction

It is observed that the greatest proportion of patients had very high levels of satisfaction with the quality of nursing care that they received during their stay in CCU. This shows that nurses are providing acceptable levels of service to patients. Desborough, Bagheri (27) highly satisfied patients will build a strong relationship with nurses and this will lead to a positive health outcome. The findings of this study on satisfaction levels are consistent with several studies that have been performed previously. (2, 8, 13, 17, 19, 26, 28-30). Social desirability Bias could be a possible explanation for this result, where participants in the study provide socially acceptable answers, as a result of whether the continuity of use of various services or the tendency of answering positively (2). Many researchers indicate that the cause of the tendency to give positive answers could be attributed to the fear of reprisal from negative scores (2).

On one hand, the items relating to satisfaction of patients that depicted the best score were similar to the findings of (31), ascertained how the nurses are skilled and competent; they attentive to the patient condition; the concern and the and caring by these nurses, privacy provisions for patients. On the other hand, the items that the patients were least satisfied with included the information given by nurses and the recognition of their opinions. In this study, the skill and competence of the nurses were observed to be the highest on the PSNCQQ score. A more recent review showed that patient satisfaction with nursing care is related to the technical proficiency of the nurse (31). Al-Awamreh and Suliman (32) also noted that higher levels of satisfaction are reported for nurses that have a high level of competency in making use of clinical skills, in administering drugs and conducting tests. Consistent with the findings of this study, (31-33), Freitas et al. (2014), recognized that the skill and competence of the nurse is a key determinant of the level of patient satisfaction. The limited

knowledge of some patients prevented them from assessing technical care quality; therefore, they may have interpreted the friendly and warm nature of nurses as technical care quality.

In this study, the lowest level of satisfaction represented by the PSNCQQ score was information was given which include giving clear explanations about tests and informing the patient about the condition. This finding is consistent with that of (18, 19) in studies of Saudi Arabian hospitals. It is also consistent with studies conducted outside Saudi Arabia by (7, 34) (30, 31) (25) and (13). Scholarly evidence ascertains that patient satisfaction also depends on the amount of time given to the patient to understand their condition, listening, talking to them, and give the relevant information at the right time because it reduced potential psychological problems and make them more engaged in the treatment process (35).

Cases, where patients are dissatisfied with the information they have been given, are common as seen in (25) this could have arisen from nurses expecting the doctor to supply information.

One of the factors that may limit nurses' ability to provide information is the hierarchy of the doctor/ nurse relationship. Nurses are expected to adhere to the instructions of the doctor on the disclosure of information to patients. Nurses require a greater level of authority in giving information to patients so that they can act as advocates for the patient. Alhusban and Abualrub (21) explained that nurses must allocate more time to patients and provide more information to them to enhance the level of satisfaction. Besides, the nurse should be given the role of providing information to the patient, as they spend a greater amount of time with them. Therefore, the nurse and the doctor should collaborate their efforts and avoid disputes over authority. Schmalenberg and Kramer (36) explain that a good relationship between the nurse and doctor enhances the quality of care.

Patients had very low levels of satisfaction concerning nurses taking into account their opinions. This result is consistent with that of (7, 26, 33), who observed that nurses largely ignored the opinions of their patients, thus leading to lower levels of satisfaction. Tang, Soong (37) indicated that taking patient opinion during their hospitalization is considered an important element in determining satisfaction with nursing care. Taking the patient's opinion into account will enable a nurse to evaluate the effectiveness of the treatment process and allow the patient to express any discomfort they may experience. Additionally, when patients perceive that their opinions are not recognized such a result is very crucial as can be used as evidence-based to change practice (37).

PSNCQQ and overall rating of nursing, services, and willingness to recommend the hospital

The satisfaction of a patient with nursing care in CCUs in this study has an impact on their overall satisfaction with the quality of care in general. This positive relationship was also reported in many studies (7, 26, 32). According to Otani et al. (38), the most essential indicators of overall patient satisfaction are the attributes of nursing care for hospitalized patients as seen with the data from the United States. An evaluation of 63 Hospitals in Norway showed that the experiences of patients with nursing care predicted patient satisfaction (39).

The result also showed that greater satisfaction with nursing care is related to the probability of repeat visits, as well as recommendations of the hospital to family and friends. This result coincided with the contribution of some authors who found that patients who are satisfied with the nursing care that they receive are much more likely to refer other people to the hospital at a later date (7, 24-26, 34). These outcomes are in line with international literature which pointing out how nursing care impacts patient perceptions, satisfaction, and intentions (40, 41). Such pieces of evidence are essential in clinical practice because it ascertains how poor levels of satisfaction could reduce the number of healthcare consumers visiting the hospital, which in turn could adversely affect the financial growth of the hospital.

Demographic and patient satisfaction

There is a limited interrelation between patient satisfaction and sociodemographic or clinical variables. For example, include the level of education, age, gender, and period of hospitalization. The reason for this variability emanates from the variation in the framework used for patient satisfaction (42). Therefore, the concern is not on the attributes of the participants but on the concept of satisfaction used to establish the instruments and the non-incorporation of the perspective of patients in the design process as well as in validation. In this case, there is a need for a universal theoretical framework for evaluating patient satisfaction.

The study also showed that demographic factors (age, gender, marital status, level of education, length of stay, and history of hospitalization) do not influence the level of patient satisfaction with the nursing care provided. These results are supported by a review conducted by (31). Additionally, the results are supported by various prior studies, which showed no statistically significant differences between patient satisfaction with nursing care and gender, (17, 18) age, (17-19, 25), marital status, (31), level of education, (19) length of stay, (18) history of hospitalization, (26, 43).

On the contrary, some previous studies revealed that older patients, (8, 26, 30, 41, 43) and men are more satisfied, (17-19). Other studies showed that patients with low education (17, 18), and with a history of hospitalization are more satisfied (26, 43, 44). Moreover, patients with a short stay in hospital were more satisfied Findik, Unsar (8).

Limitations

Due to the inability to apply random sampling during the study. The representativeness of the sample under study is questionable. Also, the study was conducted in two governmental hospitals in Saudi Arabia. Therefore, a more generalizable result would be obtained in future studies if the study included various types of hospitals in different sectors. Finally, the study only took into account patients who had been admitted to the CCUs. This could limit the generalizability of the results to patients who receive other forms of medical care and attention. Bias could have been caused by the interviewer administering the questionnaire due to some older patient unable to read. Moreover, the CCU staff were aware of the study before it was carried out, which is a factor that could have influenced the way they responded. Additionally, the fear of retribution is an occurrence that could have limited the responses made by patients about the nature of the care they received. However, the invitation poster for this study included a declaration that the responses by the patients will not in any way affect their current or future treatment. Furthermore, 20% of the questionnaires were completed by the patients' family members who may have varied perceptions and expectations to those of the actual patient.

Conclusion

In conclusion, overall patients had very high levels of satisfaction with the quality of nursing care that they received. The top high scores were given to Nurses skill and competence, attentiveness of the Nurses to the patient condition, concern, and the caring by these nurses then was the Privacy Provisions for patients. However, participants reported some issues regarding the information provided by Nurses, Recognition of the patients' opinion, the clarity of information given to patients by nurses. The nursing care quality, therefore, emerges as the major determinant of overall patient satisfaction in hospitals which affects their future return, and recommendation to the hospitals. This study is the first of its kind. Previous studies have highlighted patients' satisfaction in general, but not for this particular group. This study will be an important addition to nursing information in general, and specifically to CCU patients. The result of the study will be significant, as it provides preliminary information on patients' satisfaction in the CCU and factors that affect their satisfaction, and also will be used as a

reference for future studies. Nursing care can be improved by encouraging nurses to provide adequate information to CCU patients on their health status and taking into account the opinions of the patient. It is also recommended that the PSNCQQ tool is incorporated in quality monitoring systems that are implemented by hospitals, to enhance their focus on patient satisfaction. The PSNCQQ tool will ensure that hospitals track the ratings of patients on various performance metrics of nursing care.

Conflict of Interest

There were no financial or personal matters of conflict.

Reference

[1] Chang, E., Hancock, K., Chenoweth, L., Jeon, Y. H., Glasson, J., Gradidge, K., & Graham, E. (2003). The influence of demographic variables and ward type on elderly patients' perceptions of needs and satisfaction during acute hospitalization. International journal of nursing practice, 9(3), 191-201. DOI: https://doi.org/10.1046/j.1440-172x.2003.00420.x

[2] Romero-García, M., Delgado-Hito, P., de la Cueva-Ariza, L., Martínez-Momblan, M. A., Lluch-Canut, M. T., Trujols-Albet, J., ... & Benito, L. (2019). Level of satisfaction of critical care patients regarding the nursing care received: Correlation with sociodemographic and clinical variables. Australian Critical Care, 32(6), 486-493. doi: https://doi.org/10.1016/j.aucc.2018.11.002

[3] Jha, A. K., Orav, E. J., Zheng, J., & Epstein, A. M. (2008). Patients' perception of hospital care in the United States. New England Journal of Medicine, 359(18), 1921-1931. DOI: https://10.1056/nejmsa0804116

[4] Salmani, N., Abbaszadeh, A., Rasouli, M., & Hasanvand, S. (2015). The process of satisfaction with nursing care in parents of hospitalized children: a grounded theory study. Int J Pediatr, 3. https://10.22038/ijp.2015.5162.

[5] Shinde, M., & Kapurkar, K. (2014). Patient's satisfaction with nursing care provided in selected areas of tertiary care hospital. International Journal of Science and Research, 3(2), 150-160.Available from: http://www.ijsr.net/

[6] Yilmaz, A. T., & Cagan, O. (2018). Evaluation of patients' satisfaction levels from nursing care: A university hospital example. International Journal of Caring Science, 11(3), 1875-1880. Available from: http://www.internationaljournalofcaringsciences.org/

[7] Buchanan, J., Dawkins, P., & Lindo, J. L. (2015). Satisfaction with nursing care in the emergency department of an urban hospital in the developing world: A pilot study. International emergency nursing, 23(3), 218-224. https://doi.org/10.1016/j.ienj.2015.01.001

[8] Findik, U. Y., Unsar, S., & Sut, N. (2010). Patient satisfaction with nursing care and its relationship with patient characteristics. Nursing & health sciences, 12(2), 162-169. https://doi.org/10.1111/j.1442-2018.2009.00511.x

[9] Dzomeku, V. M., Ba-Etilayoo, A., Perekuu, T., & Mantey, R. E. (2013). In patient satisfaction with nursing care: a case study at kwame nkrumah university of science and technology hospital. International Journal of Research in Medical and Health Sciences, 2(1), 19-24. Available from: http://www.ijsk.org/ijrmhs.html

[10] Aiken, L. H., Sermeus, W., Van den Heede, K., Sloane, D. M., Busse, R., McKee, M., ... & Kutney-Lee, A. (2012). Patient safety, satisfaction, and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. Bmj, 344. https://doi.org/10.1136/bmj.e1717

[11] Turris, S. A. (2005). Unpacking the concept of patient satisfaction: a feminist analysis. Journal of Advanced Nursing, 50(3), 293-298.

https://doi.org/10.1111/j.1365-2648.2005.03392.x

[12] Soleimanpour, H., Gholipouri, C., Salarilak, S., Raoufi, P., Vahidi, R. G., Rouhi, A. J., ... & Soleimanpour, M. (2011). Emergency department patient satisfaction survey in Imam Reza hospital, Tabriz, Iran. International journal of emergency medicine, 4(1), 1-7. https://doi.org/10.1186/1865-1380-4-2

[13] Suhonen, R., Papastavrou, E., Efstathiou, G., Tsangari, H., Jarosova, D., Leino-Kilpi, H., ... & Merkouris, A. (2012). Patient satisfaction as an outcome of individualised nursing care. Scandinavian journal of caring sciences, 26(2), 372-380. https://doi.org/10.1111/j.1471-6712.2011.00943.x

[14] Crow, R., Gage, H., Hampson, S., Hart, J., Kimber, A., & Storey, L. (2002). The measurement of satisfaction with healthcare: Implications for practice from a systematic review of the literature [Internet]. Vol. 6. Health Technology Assessment. National Co-ordinating Centre for HTA.. https://doi.org/10.3310/hta6320

[15] Almalki, M., FitzGerald, G., & Clark, M. (2011). The nursing profession in Saudi Arabia: An overview. International nursing review, 58(3), 304-311. https://doi.org/10.1111/j.1466-7657.2011.00890.x

[16] Mebrouk, J. (2008). Perception of nursing care: views of Saudi Arabian female nurses. Contemporary Nurse, 28(1-2), 149-161. https://doi.org/10.5172/conu.673.28.1-2.149

[17] Atallah, M. A., Hamdan-Mansour, A. M., Al-Sayed, M. M., & Aboshaiqah, A. E. (2013). Patients' satisfaction with the quality of nursing care provided: The S audi experience. International journal of nursing practice, 19(6), 584-590. https://doi.org/10.1111/ijn.12102

[18] Al-Momani, M. M. (2016). Gap analysis between perceptions and expectations of medical-surgical patients in a public hospital in Saudi Arabia. Medical Principles and Practice, 25(1), 79-84. https://doi.org/10.1159/000441000

[19] Alasad, J., Tabar, N. A., & AbuRuz, M. E. (2015). Patient satisfaction with nursing care. The Journal of nursing administration, 45(11), 563-568. https://doi.org/10.1097/nna.0000000000000264

[20] Alaloola, N. A., & Albedaiwi, W. A. (2008). Patient satisfaction in a Riyadh tertiary care centre. International journal of health care quality assurance. https://doi.org/10.1108/09526860810910113

[21] Alhusban, M. A., & Abualrub, R. F. (2009). Patient satisfaction with nursing care in Jordan. Journal of nursing management, 17(6), 749-758. https://doi.org/10.1111/j.1365-2834.2008.00927.x

[22] Ministry of Health. Clinical Practice Guideline on the Use of Thrombolytic Therapy in Acute Stroke. Saudi Arabia: Ministry of Health, 2014. Available from: https://www.moh.gov.sa/depten/TCP/Documents/5. Stroke - Use of Thrombolytic Therapy in Acute Stroke.pdf

[23] Sørlie, V., Torjuul, K., Ross, A., & Kihlgren, M. (2006). Satisfied patients are also vulnerable patients–narratives from an acute care ward. Journal of Clinical Nursing, 15(10), 1240-1246. https://doi.org/10.1111/j.1365-2702.2006.01352.x

[24] Laschinger, H. S., Hall, L. M., Pedersen, C., & Almost, J. (2005). A psychometric analysis of the patient satisfaction with nursing care quality questionnaire: an actionable approach to measuring patient satisfaction. Journal of nursing care quality, 20(3), 220-230. https://10.1097/00001786-200507000-00006.

[25] Abdel Maqsood, A. S., Oweis, A. I., & Hasna, F. S. (2012). Differences between patients' expectations and satisfaction with nursing care in a private hospital in Jordan. International journal of nursing practice, 18(2), 140-146. https://10.1111/j.1440-172x.2012.02008.x

[26] Milutinović, D., Simin, D., Brkić, N., & Brkić, S. (2012). The patient satisfaction with nursing care quality: the psychometric study of the Serbian version of PSNCQ questionnaire. Scandinavian journal of caring sciences, 26(3), 598-606. https://10.1111/j.1471-6712.2012.00969.x.

[27] Desborough, J., Bagheri, N., Banfield, M., Mills, J., Phillips, C., & Korda, R. (2016). The impact of general practice nursing care on patient satisfaction and enablement in Australia: a mixed methods study. International journal of nursing studies, 64, 108-119. https://doi.org/10.1016/j.ijnurstu.2016.10.004

[28] Johannessen, G., Eikeland, A., Stubberud, D. G., & Fagerstöm, L. (2011). A descriptive study of patient satisfaction and the structural factors of Norwegian intensive care nursing. Intensive and Critical Care Nursing, 27(5), 281-289. https://10.1016/j.iccn.2011.07.004.

[29] Freitas, J. S. D., Silva, A. E. B. D. C., Minamisava, R., Bezerra, A. L. Q., & Sousa, M. R. G. D. (2014). Quality of nursing care and satisfaction of patients attended at a teaching hospital. Revista latino-americana de enfermagem, 22, 454-460. https://10.1590/0104-1169.3241.2437

[30] Senarath, U., Gunawardena, N. S., Sebastiampillai, B., Senanayake, A., Lekamge, S., Seneviratna, A., ... & Wijeratne, D. (2013). Patient satisfaction with nursing care and related hospital services at the National Hospital of Sri Lanka. Leadership in Health Services. https://10.1108/17511871311291732

[31] Batbaatar E, Dorjdagva J, Luvsannyam A, Savino MM, Amenta P. Determinants of patient satisfaction: a systematic review. Perspectives In Public Health. 2017;137(2):89-101. https://doi.org/10.1177/1757913916634136

[32] Al-Awamreh K, Suliman M. Patients' satisfaction with the quality of nursing care in thalassemia units. Applied Nursing Research. 2019;47:46-51. https://doi.org/10.1016/j.apnr.2019.05.007

[33] Kasa AS, Gedamu H. Predictors of adult patient satisfaction with nursing care in public hospitals of Amhara region, Northwest Ethiopia. BMC Health Services Research. 2019;19(1):52. https://doi.org/10.1186/s12913-019-3898-3

[34] Karaca A, Durna Z. Patient satisfaction with the quality of nursing care. Nursing Open. 2019;6(2):535-45. https://doi.org/10.1002/nop2.237

[35] Koc Z, SAĞLAM Z, ŞENOL MJTKTBD. Patient satisfaction with the nursing care in Hospital. ” Turkiye Klinikleri Journal of Medical Sciences 2011;31(3):629-40. https://doi.org/10.5336/medsci.2009-16413

[36] Schmalenberg C, Kramer M. Nurse-physician relationships in hospitals: 20 000 nurses tell their story. Critical Care Nurse. 2009;29(1):74-83. https://doi.org/10.4037/ccn2009436

[37] Tang WM, Soong C-Y, Lim WC. Patient satisfaction with nursing care: a descriptive study using the interaction model of client health behavior. International Journal of Nursing Science. 2013;3(2):51-6. https://10.5923/j.nursing.20130302.04

[38] Otani K, Kurz RS, Barney SMJJoHM. The impact of nursing care and other healthcare attributes on hospitalized patient satisfaction and behavioral intentions. Journal of Healthcare Management. 2004;49(3):181. https://doi.org/10.1097/00115514-200405000-00008

[39] Bjertnaes OA, Sjetne IS, Iversen HHJBq, safety. Overall patient satisfaction with hospitals: effects of patient-reported experiences and fulfilment of expectations. BMJ Quality & Safety. 2012;21(1):39-46. https://doi.org/10.1136/bmjqs-2011-000137

[40] Ksykiewicz-Dorota A, Sierpińska L, Gorczyca R, Rogala-Pawelczyk GJPHS. Polish version of patient satisfaction with nursing care quality questionnaire (PSNCQQ). Prog Health Sci. 2011;1:51-6. https://10.5604/01.3001.0013.3697

[41] Senarat U, Gunawardena NS. Development of an instrument to measure the patient perception of the quality of nursing care and related hospital services at the National Hospital of Sri Lanka. Asian Nursing Research. 2011;5(2):71-80. https:// 10.1016/s1976-1317(11)60015-7
[42] Williams BJSs, medicine. Patient satisfaction: a valid concept? 1994;38(4):509-16.
[43] Saglam Z, Şenol M. Patient satisfaction with nursing care in the hospital. Turkiye Klinikleri Journal of Medical Sciences. 2011;31(3):629-40. https://0.5336/medsci.2009-16413.
[44] Rafii F, Hajinezhad ME, Haghani H. Nurse Caring and Patient Satisfaction in Iran. International Journal of Human Caring. 2008;26(2):75. https://doi.org/10.20467/1091-5710.12.3.14