



Patients' satisfaction with the quality of nursing care in thalassemia units

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ABSTRACT

Aim: The purpose of this study is to evaluate patients' satisfaction with the quality of nursing care in thalassemia units.

Methods: A cross-sectional and descriptive research design was used. An Arabic version of the “Patients' satisfaction with nursing care quality questionnaire” (PQNCQ) was used. A convenience sample of 377 thalassemia patients from three public hospitals in Jordan was used.

Results: Overall, participants were satisfied with the quality of nursing care and the health services they received during their hospitalization. Total high scores were given for the level of nursing skills and competencies, ease of getting information, responses to patient's calls, and maintaining patient's privacy. However, participants reported some concerns regarding the structure of these units and the availability of some services, as well as the system for dispensing medication. Nevertheless, patients were willing to recommend the units to their families and friends. Significant positive relationships were found between patients' satisfaction with different nursing care practices and with overall quality of nursing care, overall hospitals' quality of care, and recommending the hospital to families and friends. Self-rated health and frequency of hospitalization were the only significant predictors for overall quality of nursing care.

Conclusion: Improving nursing care practices play an important role in shaping nurses' and hospitals' quality of the care among patients in thalassemia units.

Implication for nursing management: Policy makers and hospitals administrators should focus on nursing training programs that improve patients' satisfaction and quality of nursing care in thalassemia units.

1. Introduction

Patients' satisfaction with nursing care is considered to be an important factor or predictor of the quality of the care patients receive (Jackson, Chamberlin, & Kroenke, 2001). As an example, good nursing care encompass the followings: adequate skills, correct staff numbers, appropriate nursing attitudes, effective communication, efficient administration systems, and good community participation (Loan, Jennings, Brosch, Depaul, & Hildreth, 2003).

Patients diagnosed with thalassemia major visits hospital frequently and regularly; the visits can range from two to three weeks for blood transfusions, a life-saving treatment, accompanied by chelating therapy. Healthcare services are virtually free for all Jordanian patients diagnosed with thalassemia, through the Ministry of Health Services (Ministry of Health [MOH], 2017). However, Jordanian healthcare system as many healthcare systems in the world face an enormous work overload with overstretched resources and a shortage of healthcare providers. This can be linked to the regional political instability and huge number of refugees entering the country from surrounding

countries (High Health Council, 2015).

In general, the Jordanian healthcare system is facing major challenges, particularly in its lack of resources and with regard to administration issues. These challenges mean that the focus is on reducing the length of hospitalization, cost-effectiveness matters, and an acceleration in the rate of patients being diagnosed with various types of diseases (Curtin, 2000; Kohles-Baker, Potts, & Moore, 2000). These rising changes and challenges influence nurses' job satisfaction and the quality of nursing care as well as patients' satisfaction. The quality of provided care is defined as nursing practices of nurses according to hospitals' care standards and job description requirements (Grujic, O'Sullivan, & Wehrmacher, 1989). This research could be the first in the field to measure patients' satisfaction with the quality of the nursing care provided to patients diagnosed with thalassemia major in Jordan. The goals of the study were to investigate patients' satisfaction with the different nursing care practices, and to measure the relationship between patients' satisfaction with different nursing care practices and overall satisfaction with nursing and hospitals' quality of care.

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2. Literature review

Overall, it was found that inadequate nursing care can influence negatively on patients' experience in hospitals, and is related to dissatisfaction (Lake, Germack, & Viscardi, 2016). On the other hand, regular and effective nursing was found to positively impact on patients' satisfaction (Negarandeh, Bahabadi, & Mamaghani, 2014). It was argued that the time spent on nursing consultations had an impact on patients' satisfaction: patients with longer consultations were found to be more pleased and satisfied than those who had shorter consultations (Desborough et al., 2016). Effective communication that provides compassion and personalized care as well as information and support for patients and their caregivers can be one of the key elements in patients' satisfaction with nursing care (Wentlandt et al., 2016). In addition, patients' satisfaction was associated with effective nursing care and communication in emergency departments (Wright et al., 2013).

In Jordan, a study found that nurses working in health centers have low job satisfaction (Ahmed, Shehadeh, & Collins, 2014). Surprisingly, their findings showed that being female, younger, and less educated working in the health centers seemed to be positively connected with the higher level of job satisfaction. The authors stated that the effect of educational level was consistent with other studies conducted among Jordanian population and other populations. However, the effect of age and agender was contradicted with other studies. The authors suggested that the effect of education seemed to be more universal, but the effect of gender and age may be varied across the different cultures. Reforming the Jordanian community healthcare policies to increase awareness and give more attention to enhancing the level of coordination and interactive, effective communication in care would probably increase nurses' and patients' satisfaction. Alasad and Ahmad (2003) found that the Jordanian patients' overall satisfaction was considered relatively low compared to that of patients in other developing countries. For example, the majority of Iranian patients diagnosed with cancer (82.8%) were found to be satisfied with their nursing care process. In addition, there was an important relationship found between patients' satisfaction in the university-based hospitals and the kinds of treatment, with university-affiliated hospitals being the best predictor of patients' satisfaction level (Akhtari-Zavare, Abdullah, Hassan, Said, & Kamali, 2010).

Andaleeb (2001) highlighted the importance of the patient's viewpoint on the quality of nursing and healthcare provided. Some studies have discussed the nursing care quality in Jordanian hospitals, patients' and their families' satisfaction with care provided, and nurses' turn-over and job satisfaction (Alasad & Ahmad, 2003; Mrayyan, 2006). However, no study to date has been carried out in thalassemia units, where the patients, with their families, are admitted regularly for treatments and blood transfusions, every two, three or four weeks for many years. The quality of nursing care and job satisfaction vary according to the workplace. It was found that Jordanian nurses who work in the wards experienced more job satisfaction than those who work in special units; however, Mrayyan (2006) argued that there was no substantial variance found between the units and hospital wards regarding patients' satisfaction and the quality of care provided.

3. Methods

3.1. Research design and sampling

A cross-sectional and descriptive research design was used. The hospital-based study was carried out in thalassemia units located in three public hospitals, with data collected between December 2016 and April 2017. It is worth mentioning that thalassemia units in Jordan are only available via the public health service and no private services are available. It is estimated that the number of thalassemic patients in Jordan about 1400 patients. With 95% confidence interval and 5%

margin of error a sample consist of 300 patients were needed to be included in our study to represent the actual population. However, to avoid attrition of the participants, a convenience sample of 400 BTM patients from the three thalassemia units was selected. Patients diagnosed with thalassemia major, who were regularly admitted to the units comprised the sample.

3.2. Data collection procedure

Ethical approval was gained from an appropriate authority. The researcher arranged with the nursing administration a suitable time and date to visit units for the data collection. Each potential participant was given a consent form to sign if he/she agreed to participate in the study. The data collection took place at times that did not conflict with the units' schedule or nursing activities. In addition, the researcher gave the participants the opportunity to choose a time and date suitable for them to fill in the questionnaire, which usually took 15–20 min. The aim, objectives, and study details were presented to the participants through a research information sheet.

3.3. Instrument

The data was collected using “*Patients' satisfaction with nursing care quality questionnaire*” PQNCQ, which was developed by Laschinger, Hall, Pedersen, and Almost (2005). The questionnaire was translated and back-translated into English. A few questionnaire items were modified by experts in the field, to be congruent with the culture and social environment of Jordan. At the end of the questionnaire, the participants were requested to mention the main challenges that faced them during their hospitalization. After carrying out a pilot study, the results showed that there was no need for major modifications to the questions.

The questionnaire was composed of requests for demographic information and 23 statements. The demographic data included the patient's age, gender, and current diagnoses of BTM and other disorders. Patients were also asked how often they were admitted to the unit to receive a blood transfusion (weekly, every two weeks, every three weeks or every four weeks); overall, how they rated their health before this most recent hospital admission for blood transfusion (excellent, good, acceptable, poor, very weak, or unsure); the type of admission to the unit (through the emergency department, direct registration to the unit, transfer from another health facility (hospital or clinic), following a day procedure or test, or “Other... please specify”); for most of their hospital stay, were they in a room (by themselves, with another patient, with more than one patient); and who completed this questionnaire (the patient, parent, or relative/companion).

Participants' satisfaction was measured by the answers to 23 statements to rate the nursing care during their hospital stay (excellent, very good, good, fair or poor). For example, patients were asked to response to the statement saying, “*To what extent are you satisfy about the information or instructions were given to you in the hospital*”. Of the 23 items in the questionnaire intended to measure participants' satisfaction with the quality of nursing care: items no. 1–4 related to the information and instruction given to patients; items no. 5–6 to informing family and friends; 7–12 to nursing care; 13–19 to nursing responses; and 20–23 to overall patient's satisfaction. Question 23, “*Based on the nursing care I received, I would recommend this hospital to my family and friends*” could be answered by strongly agree, agree somewhat, agree, disagree somewhat, or strongly disagree. The validity and reliability of the questionnaire were both excellent. The reliability was measured using Cronbach's alpha and the content validity was established through exploring factor analysis.

3.4. Data analysis

The data was checked twice to assure the accuracy and then

Table 1
Participants' characteristics (general information).

Items	No. (%)
Total sample number	377
Gender	
1. Male	187 (49.6)
2. Female	190 (50.4)
Age (mean, SD)	(21yd, 5.4)
Patient history of other disorders	
1. Yes	121 (32.1)
2. No	155 (41.1)
3. I don't know	101 (26.8)
How often you visit the hospital?	
1. Weekly	4 (1.1)
2. Every 2 weeks	39 (10.3)
3. Every 3 weeks	135 (35.8)
4. Every 4 weeks	168 (44.6)
5. > 4 weeks	31 (8.2)
In general, would you say your health is:	
1. Excellent	102 (27.1)
2. Good	198 (52.5)
3. Fair	52 (13.8)
4. Poor	16 (4.2)
5. Very poor	9 (2.4)
For most of your stay, you were in a room:	
1. By yourself	5 (1.3)
2. With one other person	5 (1.3)
3. With more than one other person	367 (97.3)
Way you were admitted to the unit:	
1. Admitted through the ER	16 (4.2)
2. Admitted through thalassemia unit	303 (80.4)
3. Admitted through register office	58 (15.4)

analyzed using the Statistical Package for Social Sciences (SPSS) version 21. A descriptive statistics analysis was used to describe participants' characteristics and statements. Different items of satisfaction with the quality of nursing care were reported in numbers and percentages. To

Table 2
Patient satisfaction with nursing care quality in thalassemia units.

Items	Response to each item			Correlation with quality indicators		
	Excellent N (%)	Very good/ Good N (%)	Fair/Poor N (%)	23. Overall quality of care	22. Overall quality of nursing care	20. I would recommend this hospital
Information were given to patients						
1. Information you were given:	233 (61.8)	132 (35)	12 (3.2)	0.34**	0.34**	0.29**
2. Instructions:	200 (53.1)	164 (43.5)	13 (3.4)	0.30**	0.33**	0.30**
3. Ease of getting information:	261 (69.2)	109 (28.9)	7 (1.9)	0.38**	0.41**	0.27**
4. Information was given by nurses:	203 (53.8)	158 (41.9)	16 (4.2)	0.41**	0.45**	0.29**
Informing family and friends						
5. Informing family or friends:	170 (45.1)	188 (49.9)	19 (5.0)	0.38**	0.31**	0.19**
6. Involving family or friends in your care:	180 (47.7)	180 (47.7)	17 (4.5)	0.46**	0.38**	0.22**
Nurses' care						
7. Concern and caring by nurses:	273 (68.4)	93 (24.7)	11 (2.9)	0.40**	0.39**	0.32**
8. Attention of nurses to your condition:	223 (59.4)	142 (37.7)	12 (3.2)	0.45**	0.44**	0.30**
9. Recognition of your opinions:	174 (46.4)	183 (48.5)	20 (5.3)	0.44**	0.41**	0.29**
10. Consideration of your needs:	214 (56.8)	145 (38.5)	18 (4.8)	0.43**	0.44**	0.37**
11. The daily routine of the nurses:	170 (54.1)	180 (47.7)	27 (7.2)	0.47**	0.43**	0.38**
12. Helpfulness:	215 (57.0)	148 (39.3)	14 (3.7)	0.44**	0.48**	0.38**
Nurses' responses						
13. Nursing staff response to your calls:	230 (61)	143 (37.8)	4 (1.1)	0.41**	0.42**	0.28**
14. Skill and competence of nurses:	275 (72.9)	97 (25.7)	5 (1.3)	0.33**	0.33**	0.24**
15. Coordination of care:	204 (54.1)	166 (44)	7 (1.9)	0.44**	0.42**	0.38**
16. Restful atmosphere provided by nurses:	220 (58.4)	144 (38.8)	13 (3.4)	0.49**	0.48**	0.33**
17. Privacy:	212 (56.2)	152 (40.3)	13 (3.4)	0.50**	0.47**	0.36**
18. Discharge instructions:	172 (45.6)	180 (47.7)	25 (6.6)	0.51**	0.42**	0.33**
19. Coordination of care after discharge:	151 (40.1)	199 (52.8)	27 (7.2)	0.53**	0.44**	0.29**

** Significant level at 0.001.

facilitate the analysis, patients' responses were grouped into three categories: excellent; good and very good; and fair and poor. A Pearson Product-Moment Correlation Coefficient was performed to measure the relationships between patients' satisfaction with individual nursing care practices (items 1 to 19), and "I would recommend this hospital" (item 20), "overall satisfaction with nursing care" (item 21), and "hospitals' quality of care" (items 23). Furthermore, a multiple linear regression analysis was used to test if patients' characteristics predicted overall quality of nursing care. Finally, a thematic analysis was used for the last question to find the main challenges that faced patients during hospitalization.

4. Results

4.1. Participants' characteristics

Table 1 lists the results from the first part of the questionnaire in detail. A total of 377 out of 400 questionnaires were completed and returned from the three hospitals (response rate = 94.3%). Of the 377 participants, 49.6% were male (n = 187) and 50.4% female (n = 190). The largest patient age group was adolescent and young adults, aged 14–40 (M = 21 years old; SD = 5.4). Most patients received regular blood transfusion every three weeks (n = 135; 35.8%) or four weeks (n = 168; 44.6%), and around half of them (n = 195; 51.7%) had no history of other health disorders. Most participants (n = 303; 80.4%) were admitted directly through to the units. Almost half of participants (n = 198; 52.5%) had a positive overall perception of their health status before admittance to the unit, rating it as good. Almost all participants (n = 367; 97.3%) shared a room with more than one other person at the time they were admitted.

4.2. Patients' satisfaction with nurses' care practices

Table 2 show that over half the participants rated the information

given by the nurses as excellent ($n = 203$; 53.8%). They stated that the information given was clear and comprehensive, as were the nurses' descriptions about the required tests, treatments, and what the patients might expect. The participants reported that the nurses kept their family and friends well informed about their health condition and needs. Almost half of the participants ($n = 180$; 47.7%) rated involving family and friends in healthcare plans as excellent, and the same number ($n = 180$; 47.8%) as good or very good, with very few ($n = 17$; 4.6%) saying it was fair. Most of the participants were satisfied with the nursing care and concern ($n = 273$; 72.4%), the attention of nurses to their health condition ($n = 223$; 59.2%), and the consideration of their needs ($n = 214$; 56.8%) which were all rated as excellent. The data shows that most of the participants reported nurses' helpfulness as excellent ($n = 215$; 57.0%). In addition, most of the participants were satisfied (rating as excellent) with nurses' skills and competencies ($n = 275$; 72.9%). The coordination of care between nurses in the units and other healthcare professional was rated by more than half as excellent ($n = 204$; 54.1%). More than half of the participants ($n = 212$; 56.2%) indicated that the nurses were excellent in their provisions for patients' privacy, and ($n = 152$; 40.3%) said it was very good; only ($n = 13$; 3.5%) said it was fair.

4.3. Overall perceptions of quality of care

Participants in the three thalassemia units were overall satisfied with the quality of care and the health services they received in their hospitals: 177 (46.9%) reported it as excellent, and the same number (46.9%) as good; only 23 (6.1%) were dissatisfied with the care and reported the service they received as poor. Moreover, 185 (49.1%) rated the quality of nursing care they received in the units as excellent and 172 (45.7%) rated nursing care as very good. Finally, close to half of participants 277 (46.7%) strongly agreed they would recommend their hospital to family and friend.

4.4. Relationships between items

Table 2 shows strong positive relationships between all items (1–19) that measure patients' satisfaction with different nursing practices and their perceptions of the overall quality of hospitals and nursing care and if they would recommend the hospital to family and friend. The results indicate that patients' satisfaction with hospitals and nursing care are strongly associated with the better treatment they received during their hospitalization. a strongest positive correlation ($r = 0.53$, $p < .001$) between item 19 (coordination of care after discharge) and patients' satisfaction with overall care received in the hospital. The lowest positive correlation was between patient would recommend the hospital to a family and friends and item 6 (“involving family or friends in your care”) ($r = 0.22$, $p < .001$).

4.5. Variables predicting quality of nursing care

A linear regression model was used to test which patients' characteristics predict patients' perception about overall quality of nursing care. The model includes patients' gender, age, previous medical history, frequency of hospitalization, and self-rated health. The final model shows significant results ($F(4, 377) = 15.8$, $p < .001$). The final model explained small amount of variance in overall quality of nursing care (20.3%). Self-rated health and frequency of hospitalization were the only significant predictors we found, ($\beta = 0.44$, $p < .0001$) and ($\beta = -0.32$, $p = .05$) respectively. Indicating that patients with higher perception about their health were expected to have higher level of satisfaction with nursing quality of care controlling for the other variables in the model. On the other hand, patients who more often visited hospitals were expected to have lower satisfaction with nursing quality of care controlling for the other variables in the model (see Table 3).

Table 3
Variables predicting overall quality of nursing care.

Variables	B	Std. Error	Beta	t	Sig.
Gender	0.160	0.098	-0.084	-1.641	0.102
Age	-0.002	0.009	0.012	0.235	0.815
Past medical history	0.069	0.101	-0.035	-0.678	0.498
Frequency of hospitalization	0.380	0.61	-0.32	-1.618	0.05
Self-rated health	-0.465	0.054	0.441	8.626	0.000

Note. Alpha significant at ≤ 0.05 .

4.6. Challenges that faced patients

In the last part of the questionnaire, the participants were requested to mention the main challenges that faced them during their hospitalization. Almost half ($n = 185$; 49.1%) reported concerns about the units' infrastructure; the treatment rooms were not prepared with all the items required for blood transfusion procedures, and the patients had to wait long hours for some procedures and interventions. In some units, many participants ($n = 192$; 79.2%) found the facilities and the services for patients with special needs, especially mobility, were limited. Shortage of beds and chairs during blood transfusion was noticed in all three units. Almost half ($n = 185$; 49.1%) reported many concerns about some of the facilities in the units, including hygiene and the availability of sanitary facilities. Delay in the medication-dispensing mechanism was a major issue reported by patients ($n = 121$; 60.5%) in the three units. Patients or their caregivers frequently spent three to four hours waiting for the medications to be dispensed from the pharmacy or were asked to return to the hospital for their medication, a waste of their time.

5. Discussion

Our findings show that 81.1% of the participants were highly satisfied with the overall nursing care in the thalassemia units and would recommend them to their family and friends. High satisfaction will lead to the building of a deep relationship between patients and nurses which may lead to better health outcomes (Desborough et al., 2016). Total high scores were given for nursing care and concern, information given to patients, patient's privacy, and the skill and competence of nurses. In addition, patients in this study were satisfied with how the nurses kept their families updated about their health condition, which is considered to be one of the key elements of patients' satisfaction (Wentlandt et al., 2016).

The results showed that patients were pleased to keep family and/or friends involved in the healthcare plan and informed about their health status through different communication channels. Participants in this study were satisfied with nurses' communication. This finding is supported by another study which suggested that there is a need to keep an open channel of communication with patients' families, suggesting family conferences as an example (Kodali et al., 2014).

Although patients demonstrated high satisfaction levels with nursing care practices, most of the participants were concerned about the number of healthcare providers available in the units. For example, the number of nurses caring for thalassemia patients ranged from three to four nurses for 30 to 50 patients per shift. It is argued that available and appropriate health resources and adequate nurse-to-patient ratios can enhance the quality of care and increase patient's satisfaction levels (Aiken et al., 2001; Wentlandt et al., 2016). In another study, You et al. (2013) found that higher patient-to-nurse ratios are associated with patients' dissatisfaction. Papastavrou, Andreou, Tsangari, and Merkouris (2014) suggested that patients experience a low level of satisfaction with nursing care at units with a high level of rationing of nursing care. Sufficient numbers of nurses positively affect the quality of care provided to patients (Kvist, Voutilainen, Mäntynen, & Vehviläinen-Julkunen, 2014). Not only are the insufficient numbers of

nurses a challenge, but also the data showed that there is gender inequality. Unequal numbers of male and female nurses on the shift could be difficult for patients of both genders. For instance, one unit had only one male nurse and the other two units had none. Having nurses from both gender could benefit since our findings showed that nearly half of the participating patients (49.6%) were male.

In terms of the healthcare setting and satisfaction, most of the participants were admitted to thalassemia units directly and for blood transfusions three to four times a week as out-patients. The participants revealed that the nursing care they received when admitted to the wards was much better than what they received in the thalassemia units in terms of meal times, food, availability of beds and chairs, and the sanitary services. This is also congruent with the findings of [Kvist et al. \(2014\)](#) that patients admitted to hospital wards reported receiving better nursing care and the meeting of their basic daily needs such as meals and hygiene was better than in the out-patient units. Improving the quality of patients' care should guarantee their comfort, cleanliness, and the availability of required sanitary facilities ([Senarath et al., 2013](#)).

Responding to patients' requests at an appropriate time and meeting their needs in a helpful manner directly impacts on patients' level of satisfaction with the quality of nursing care: 61.2% of patients were satisfied with the nurses' responses to their calls and requests. This issue is also discussed by [Kalisch, Xie, and Dabney \(2014\)](#), who found that patients in units reported a delay in nursing care which reflected the time the nurse took to respond to their request, adding to their dissatisfaction. In the current study, 72.4% of patients were satisfied with the nursing care and there was no report of inadequate nursing care, as their needs were met. Patients revealed that they received their transfusions on time with no delay, and that blood was available most of the time. This finding is supported by another study ([Kalisch et al., 2014](#)), which stated that missed care can have an unfavorable effect on patients' health status and can negatively impact their hospitalization period.

Participants revealed some concerns about the available and ready-to-use services in the unit. For example, patients in all three units were uncomfortable with the sanitary facilities, and this reduced their level of satisfaction. Patients' satisfaction can be improved by guaranteeing comfort, cleanliness and appropriate sanitary facilities inside the hospital ([Senarath et al., 2013](#)). This also congruent with [Woldeyohanes, Woldehaimanot, Kerie, Mengistie, and Yesuf \(2015\)](#) finding, who reports that the highest patients' satisfaction respondent was the hygiene and the cleanliness of the patients' rooms.

The positive relationships between patients' satisfaction with nursing practices and overall satisfaction with quality of care were consistent with the findings of other studies ([Ahmad, Alasad, & Nawafleh, 2010](#); [Atallah, Hamdan-Mansour, Al-Sayed, & Aboshaiqah, 2013](#); [Johannessen, Eikeland, Stubberud, & Fagerstöm, 2011](#); [Needleman, Buerhaus, Mattke, Stewart, & Zelevinsky, 2002](#); [Tang, Soong, & Lim, 2013](#)). It was found that nurses should provide appropriate care to patients to improve their quality of life ([Ahmad et al., 2010](#)). The number of nurses and the hours they spend on patients' daily care is positively correlated with the quality of their hospitalization period ([Needleman et al., 2002](#)).

The results showed that patients who rated their health status as 'excellent or good' were more satisfied with the quality of nursing care provided to them. This could be explained that patients believe that good quality of nursing care helped in improving their health status. This finding supported by ([Haile Eyasu, Adane, Amdie, Getahun, & Biwota, 2016](#)) whom found that, good self-reported current health status was significantly associated with better satisfaction with nursing care. [Lis, Patel, and Gupta \(2015\)](#) found also significant relationship between self-rated health status and patients' satisfaction with service quality. Their result showed patients who survival in prostate cancer, with excellent self-rated health were more satisfied with quality of services they received and had significantly decreased the risk of

mortality.

On the other hand, frequency of hospitalization found to be significant predictors of patients' satisfaction with nursing care. It could be related to patients' previous experiences at the same health setting. This discussed by [Ahmed, Assefa, Demisie, and Kenay \(2014\)](#) in Ethiopia, whom argued that the level of patients' satisfaction decreases with patients who previously admitted to hospitals. They found that, the more previously patients admitted to the public hospitals the more they dissatisfaction with the care provided. In addition, the type of room if it is special room and the short duration of stay also impact positively on patients' satisfaction.

The quality of nursing care is a shared responsibility between bedside nurses, nurse leaders, administrators, and the healthcare providers. [Atallah et al. \(2013\)](#) added that, to improve the patient's education, the information given, and the language used with patients can play a key role in satisfaction and improve the quality of care provided. [You et al. \(2013\)](#) discussed how to maintain patients' safety to improve their satisfaction; the quality of care provided is part of the nursing care plan for patients in the units. [Aiken et al. \(2001\)](#) emphasized the importance of communication with patients, providing information and supporting family and caregivers; they also focused on how important it is to facilitate the appropriate resources for patients and ensure adequate staff to provide the required nursing care. They further highlighted the importance of the availability of the healthcare facilities and the services. Recognizing patients' opinions during their hospital stay can be an important factor which increases their satisfaction with the quality of nursing care ([Tang et al., 2013](#)), and vice versa, which is consistent with this study's findings. Surprisingly, in another study, [Johannessen et al. \(2011\)](#) found there is no association between nursing skills and competence in the clinical area with patients' satisfaction with their units.

6. Conclusion

The results indicate that most of the BTM patients were satisfied overall with the quality of nursing care they received in the thalassemia units. Total high scores were given for the level of nursing care and concern, the information given to patients, patient's privacy, and the competence of nurses. However, participants reported some concerns regarding the units' structure and the availability of some services as well as the system for dispensing medication. Nevertheless, patients were willing to recommend the units to family and friends.

7. Implications

This study described patients' satisfaction with the quality of nursing care in thalassemia units and identified the major issues and challenges facing patients. The results add a new line to the literature and to the nurses' knowledge about the patients' satisfaction with the quality of nursing care. The findings could be the basis for future researchers and educational programs to increase and strengthen nursing care in thalassemia units. Also, it could be used as a guideline for policy makers and hospital administrators, helping them to improve the quality of nursing care and the organizational structure of the units, which will have a positive impact on patients, their families, and the hospitals' quality assurance.

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