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When nurses become ill, are they able to identify the predictors of the quality of care they received?

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ABSTRACT

Background: Nurses are the most qualified judges for quality of nursing care (QNC) because they have the greatest experience with standard care. It is vital to examine QNC from the perspective of nurses who have experience as hospitalized patients or as caregivers in order to perform an accurate assessment of the nursing care that is delivered to meet the needs of patients.

Aims: To examine the predictors of QNC from the perspective of nurses as patients and/or as caregivers for hospitalized relatives.

Methods: This study aimed a cross-sectional correlational design that utilized a convenience sample of 231 registered nurses recruited from eight hospitals in three health care sectors in Jordan. Data were collected using caring behaviors inventory, nurse professional competence scale, and using a single item rating scale that asked nurses to respond to the overall QNC.

Results: The hierarchical multiple regression showed that QNC scores was predicted with a high variance (61%) explained. The strongest predictive contribution was from nursing competencies. Only 34% of the participants gave positive scores for the overall QNC, and their perception was moderately positive.

Conclusion: It is necessary to examine QNC from the perspective of nurses who have experience as hospitalized patients or as caregivers.

Keywords: quality of nursing care, predictors, self-experience, nurses as patients

INTRODUCTION

Meeting needs and expectations through adherence to pertinent standards and requirements and thorough application of care throughout the nursing process are key components of quality nursing care [1-4]. Quality of nursing care (QNC) is defined as "meeting the human needs through caring, empathy, respectful interactions of which responsibility, intentionality, and patient advocacy are essential elements for an integral foundation" [5].

Worldwide, healthcare organizations struggle to deliver high-quality care and guarantee patient satisfaction [6]. A crucial component of assessing the quality of health care has been looking at nursing care from the patients' perspective, including patient satisfaction. Particularly in developing nations like Jordan, patient perception of the quality of care is not sufficiently investigated [4].

Patients' perceptions of QNC are influenced by prior experiences and how well the care met their personal expectations [7, 8]. Patients are likely to be most concerned with nurses' communication skills, listening skills, kindness, and responsiveness [9]. Patients' perceptions of hospital ward standards and their definitions of quality may be reflected in their perspectives on QNC [4, 10].

Few studies in Jordan over the past two decades have focused on nurses' or patients' perspectives on QNC and related issues [11-13]. Patients typically give high scores when rated on their satisfaction with nursing care [14, 15]. On the other hand, the researchers did not pay sufficient attention to how QNC was evaluated by nurses, who are themselves hospitalized patients. Nurses are the best judges for QNC because they are most familiar with typical care [16]. Examining QNC from the perspective of nurses who have experience either as hospitalized patients or as caregivers is necessary in order to conduct an accurate and comprehensive analysis of the nursing care that is currently being provided in order to fulfill the requirements of patients.

METHODS

Study Design

The predictors of QNC among nurses who were admitted as patients or caregivers were studied using a cross-sectional correlational design.

Sample and Setting

The study's self-reported questionnaires were filled out by 231 registered nurses (RNs) who were either hospitalized themselves or were taking care of family members who were hospitalized. The people in the sample came from eight hospitals in Jordan. From each hospital, nurses who had been admitted for at least 24 hours in the last year or are still there chosen at random.

Measures

Caring behavior inventory (CBI) and nurse professional competence (NPC) scale were both used in this study. All of Watson's theory's helpful ideas were used to make CBI. CBI is a 42-item tool that used by [17]. It has five related subscales: human presence (12 items), respect for others (12 items), professional knowledge and skills (five items), positive connectedness (nine items), and paying attention to others' experiences (four items). The scale was shown to be valid and reliable, with a Cronbach's alpha coefficient of .96 showing that it was consistent within itself [17].

It was developed NPC scale as a way to measure nurses' professional competencies [18]. Exploratory factor analysis of the 88-item version of the scale showed that 48% of the total variation could be explained by eight competence areas. Cronbach's alpha values for each area of competence were all 0.71. Also, known-group validity was used to show that the NPC scale had construct validity.

QNC was judged by a single question that asked nurses to rate the overall QNC on a scale from 1 to 5. A score of 5 meant the care was excellent, 4 meant it was very good, 3 meant it was good, 2 meant it was fair, and 1 meant it was poor. Ordinal scales with five or more categories can often be used as continuous variables without hurting the analysis [19, 20].

Procedure

A self-administered questionnaire was used to collect data. It asked about the participants' characteristics, overall QNC, CBI, and NPC scale. The study's main researcher made plans with the heads of the units at the hospitals that were being studied to make it easier to ask eligible nurses to take part in the study. The consent form was signed by the nurses who agreed to take part. The people filled out the questionnaires and gave them to the main researcher during the same shift or at a later time as planned.

RESULTS

The study sample was made up of 231 nurses, and 94 of them were men (40.7%). The average age of the sample was 31.7 (standard devation [SD]=7.03), and the ages ranged from 22 to 53. Most of the people who were admitted were taking care of family members (73.2%, n=169). The average amount of work experience was 8 years (SD=6.64), and the range was from 0.5 to 30 years. About half of the people who took part in the study were patients or caregivers in the same hospital, where they worked. On average, people stayed there for 5.4 nights (SD=8.53). **Table 1** shows what the people who took part in this study were like.

Table 1. Sample characteristics (n=231)

Variable	Mean	SD
Age (range: 22-53)	31.68	0.40
Work duration (years) (range:.5-30)	8.43	6.64
Length of stay (nights) (range: 1-90)	5.37	8.53
	Frequency (n)	**Percentage(%)**
Sex		
Mae	94	40.7
Female	137	59.3
Educational degree		
Diploma degree	10	4.3
BSc	192	83.1
MSc	29	12.6
Type of hospital participating in		
Educational hospital	68	29.4
Governmental hospital	94	40.7
Private hospital	69	29.9
Type of hospital admitted to		
Educational hospital	68	29.4
Governmental hospital	72	31.2
Private hospital	58	25.1
Military hospital	33	14.3
Admitted to the same hospital working in		
Yes	119	51.5
No	112	48.5
Admission as		
Participant himself/herself	62	26.8
Caregiver	169	73.2

For data analysis, statistical package for social sciences (licensed SPSS, version 25.0) was used [21]. **Table 2** shows that the average score for how people felt about QNC was 3.07 (SD=1.07), and only 34.2% of people thought QNC was very good or excellent.

Hierarchical multiple regressions with stepwise analysis were used to find the factors that nurses as patients and/or caregivers thought affected QNC. Overall, QNC was seen as an outcome variable, while nurses' skills and the five caring behavior subscales (human presence, respectful deference to others, professional knowledge and skills, positive connectedness, and being attentive to others' experiences) were seen as predictors of the outcome variable. These predictors were chosen because they fit with Watson's theoretical framework in terms of how they work.

The statistical analysis's assumptions were put to the test. The first look at the data, using histograms and scatter plots, showed that all of the variables had fairly normal distributions, with no extreme outliers and linear relationships. Tolerance test showed that there was no sign that the independent variables were related to each other in more than one way.

In step 1, demographic variables were put in so that they could be considered. Before running the regression analysis, dummy codes were made for all nominal variables with three or more categories [22]. Education level was a nominal variable with three groups, so D1 and D2 were used to represent the diploma and bachelor's levels of education, respectively. The type of hospital work was a nominal variable with three groups,

Table 2. Descriptive results for overall perception of quality of nursing care

n (%)					Mean	Standard deviation	Skewness
Poor	Fair	Good	Very good	Excellent			
17 (7.4)	51 (22.1)	84 (36.4)	57 (24.7)	22 (9.5)	3.07	1.07	.03

Table 3. Hierarchical regression with stepwise analysis for predicting overall QNC

Predictors	Beta	t-statistics
Step 1 (R=.43; R^2=.18; $R^{2adj.}$=.13; F=3.37; & p<.01)		
Sex	-.05	-1.05
Age	-.02	-.22
Education		
Diploma	-.06	-1.22
BSc or above	-.02	-.50
Type of hospitals		
D1: Educational	.01	.12
D2: Governmental	-.07	-1.15
Type of hospital admitted to		
D1: Educational	-.08	-1.11
D2: Governmental	-.08	-1.06
D3: Private	-.06	-.91
Duration of work	.01	.09
Admission (self/caregiver)	-.05	-.93
Admitted to same hospital working in	.01	.12
Length of stay (nights)	.06	1.26

Step 2 (*p<.05 & **p<.01)				
Predictors	**R**	**R^2**	**Adj. R^2**	**R^2 change**
Nursing competencies (NCs)	.76	.58	.56	.40
NCs/respectful difference	.78	.61	.58	.03

so dummy variables were used: D1 for educational hospitals and D2 for general hospitals (representing the governmental hospitals). Also, the type of hospital admission was a nominal variable with four groups, so dummy variables were used: D1 for people admitted to educational hospitals, D2 for people admitted to government hospitals, and D3 for people admitted to private hospitals (representing the group admitted to private hospitals). As shown in **Table 3**, the results showed that the variance in QNC, based on the demographic variables, was .18 (F=3.37; p<.001).

In step 2, the possible effects of the demographic variables were considered, and nurses' professional competencies and caring behaviors (human presence, respectful deference, professional knowledge and skills, positive connectedness, and paying attention to others' experiences) were entered using the stepwise method to predict the overall QNC. For each variable, the F-ratio and R^2 increment were looked at to figure out how statistically important each predictor's contribution was. Four variables were left out because they did not make a big difference in R^2. Only the predictors that contributed significantly to the model were added. So, in order to predict QNC, the following order of variables was used: First, nursing competencies, which led to an increase in R^2 of.40 (F=20.82, p<.001). Then, respect for others was added, which led to an increase in R^2 of 0.03 (F=14.33, p<.001). So, total QNC score could be predicted by nursing competencies and showing respect for others, which explained about 61% of the difference. But nursing competencies were the most accurate predictors on their own (**Table 3**).

DISCUSSION

Quality of Nursing Care

The people who took part in this study thought that QNC they got while they or a close relative was in the hospital was mostly good. This could mean that people thought QNC was not good enough. Participants' experiences of care show how nurses actually treated them and how well they did their jobs during the care process. But this result goes against what most other studies have found, which is that the highest percentage of respondents saw high levels of QNC [10, 11, 23, 24].

The fact that our results are different from those of other studies done in Jordan and around the world could be because QNC was measured by nurses who had been both patients and caregivers [14, 15, 25-27]. The nurses' evaluation of QNC was based on QNC. They know what is right and compared what the nurses in the hospital gave them to what they should have given.

Predictors of Quality of Nursing Care

After considering the possible effects of demographic variables, the current study shows that nurses' professional skills and respect for others were strong predictors of QNC as a whole. Most of the people who took part made it clear how important it is for staff to keep learning and improving their skills and performance, to have a high level of education, to follow care quality standards, and to have the knowledge and skills to teach patients about the care process. This result is the same as what was found in [28, 29]: that that caring is based on four things: knowledge and skills, confidence, respect, and feeling connected. It was also concluded that QNC was characterized by competence and personal care, backed up by professionalism, and given with the right attitude [30]. Nurses use different skills in different situations [31]. However, there have not been any studies yet that look at a nurse's professional competence as a predictor of QNC from the point of view of a nurse who has been a patient.

The current study showed that the total NPC score was the best way to predict the overall QNC. This could be because RNs as patients or caregivers might be able to judge the professional skills of nurses well because they know enough about them. It was found that clinical competence is considered a significant predictor of patient satisfaction with nursing care [32]. It was found that nurses' ability to do their jobs well had a big effect on QNC and that the success of nursing care is closely tied to how well nurses do their jobs [33].

The relationship between a patient and a nurse should be handled by nurses who are qualified and have direct contact with the patient. This builds trust, gives the patient power, and makes the patient feel better [34]. Participants also thought that high QNC was linked to treating others with respect and deference. This finding shows how important psychological factors are for giving good care. Respectful deference means that nurses treat the patient with respect and courtesy while they are taking care of them [35, 36]. There is not enough evidence about how people see caring behaviors that show respect for others [37]. However, although respect is fundamental to ethical nursing practice, it has not been But, even though respect is an important part of ethical nursing practice, it has not been studied enough [7]. So, not much is known about how nurses gain, keep, and show respect for their patients while taking care of them [27]. The relationship between a patient and a nurse should be handled by a nurse who is qualified and has direct contact with the patient. This will build trust, give the patient power, and make the patient feel better [38]. It was reported that in order to improve QNC, nurses need to work on communicating well with their patients [39].

Our study's potential limitations include the possibility that nurses' perspectives and assessments of care may skew those perceptions. The nurses may contrast all facets of the

care they received while hospitalized with their own hospital work, where there may be differences in all work environments and resources. They may have had different perspectives as a result. Additionally, the nurses' responses might have been impacted by the variation in admission time. While some participants were hospitalized simultaneously at the time of data collection, others had already been admitted within the previous year.

All participating hospital administrators were provided with the study's results upon completion. The researchers also met with the nurse supervisors in the settings, where the study was conducted in order to explain the findings. This study's findings provide nurses with information regarding the factors that promote or hinder the perception of QNC. Negative features were communicated to the nursing personnel to heighten their knowledge of certain issues. Therefore, the nursing staff can utilize this knowledge to determine how to prevent these issues in the future. A follow-up study is required to determine the exact effect of the study on QNC on the care provided by nurses in the same situations.

Limitations of the Study

The perspectives and assessments of care made by nurses may influence such perceptions. The nurses may contrast every part of the treatment they received while in the hospital with their own hospital work, where there may be differences in the work conditions and resources. Furthermore, there were variations in the admission time. While some participants were hospitalized simultaneously at the time of data collection, others had already been admitted during the previous month.

CONCLUSIONS

This is one of the first studies in Jordan to examine how nurses' own experiences as hospitalized patients or as family caregivers affect the quality of care they provide to their patients. The strongest predicting factor was provided by nursing competencies. It would be helpful to see studies comparing nurses' perspectives in different parts of the world. An increase in nurses' compassionate actions and knowledge could boost patients' opinions of QNC they receive. Generalizability was ensured by using a large and diverse convenience sample drawn from eight hospitals across Jordan's three health sectors (government, private, and academic).

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Ethical statement: Authors stated that before the study was performed, permission was obtained from the hospitals where the research took place. Each participant gave verbal consent first, and then gave written informed consent (approval number 710/2019/179). The form had information about the study's goals, how it would be done, and why it was important. The nurses were told that taking part in the study is completely up to them and that their choice would not hurt them in any way.

Declaration of interest: No conflict of interest is declared by authors.

Data sharing statement: Data supporting the findings and conclusions are available upon request from the corresponding author.

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