



# Mothers' Satisfaction with the Quality of Nursing Care in the Pediatric Wards of Mosul Hospitals

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## ABSTRACT

**Background:** Mothers in addition to their sick children should be given the best of care which requires the presence of nursing care quality. The determination of the study remained to evaluate mothers' level satisfaction through nursing care quality at the wards of pediatric in hospitals of Mosul. **Methodology:** There was a cross-sectional study design at pediatric units of Mosul hospitals between 1 of June and 16 of August/ 2025. It was characterized as a non-randomly purposive sample, and the total sample of mothers (200) drawn on the five hospitals located in the Mosul City. The questionnaire was still based in two parts. The initial section was the demographic data, whereas the second one was connected with the satisfaction of mothers on the nursing care quality. Fourteen committees of experts were used to question the validity. One of the tests of Cronbach Alpha (0.807) was to use 23-26 June/ 2025 dependability of the pilot study using version 26 of SPSS. **Result:** Highest proportions of sample mothers remained the total which gave great respect at hospital level was 44.0%, (88) at very satisfied level and the total hospital services level 57.0%, (114) at satisfied level, the total communication inside the hospital level 51.0%, (102) at satisfied level, the total management and treatment 51.0%, (102) at satisfied level and the total hospital environment 40.0%, (80) at satisfied level. Most of the demographic features (mother and child) exhibited non-significant relationship with most of the study results selected concerning the nursing care quality at level  $p$ . value  $\leq 0.05$ . **Conclusion:** Regarding levels of mother satisfaction levels and the hospital management services provided in the study, it is worth noting that the total gives much respect at the hospital level at very satisfied level but at the hospital services level, communication level inside the hospital, management and treatment level, and at the environment level of the hospital the satisfaction rates are at satisfied level. The scale of the satisfaction of the mothers who visited the hospital in the study at the level of satisfied ones was the total one.

## 1. Introduction

Satisfaction can be defined as a level of experience that an mothers have relative to expectation, measured to what extent ill children and their mothers feel

satisfied with health services, specifically, the level of nursing care, because the satisfaction of mothers is more prone to adhere to treatment

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and, play the role of self-doers (1; 2). they will use nursing care services, remain with nurses and is associated with a certain system, as well as health professionals can be of use satisfaction surveys helping to determine the areas targeting improvement of services, and health expenses can be utilized approach of patient-driven planning and assessment (3).

To that, Satisfaction remains rarely a pre-prepared condition which can be measure objectively nonetheless an opinion provided by the ill children and their families and mothers retroactively. In turn, the satisfaction of mothers regarding the received health care becomes the issue of the highest priority (4). In addition, satisfaction is being more and more closely associated with improved quality of care and improved health outcome and is the basis of shared decision-making and person-centered care which, among other aspects, are two quality service pillars prevalent in the consumer view (5; 6)

The mother's satisfaction is symbolized as the perception of mother needs and expectations being fulfilled as regards to the need of their sick children (7) fast becoming the major indicator used to measure quality in nursing care, since the mother's satisfaction in the event of sick children in medical facilities is a social research construct, which explains the satisfaction by the people of demanded services by the health care system especially nursing care (8; 9)

Nursing care is a very important component of the healthcare delivery system and considerable contributor to the overall ill children of their mother's satisfaction specifically, mothers are more bound to be extremely contented about received nursing care fulfillment (10; 11). Not understanding what causes mothers to be happy is something that healthcare providers need to take into consideration so that maximum satisfaction levels can be achieved on a mother having sick children (12).

Quality nursing care is also a critical aspect of giving the mothers and their sick children optimal care, hence, it is worthwhile to comprehend the degree to which the mothers are satisfied through the nursing care quality offered to them because

satisfaction can directly translate into good health and wellbeing of the mothers (13)

Being a mother, we need to clearly understand the quality of nursing care the child has access to, good quality nursing care can contribute significantly to comfort and health of child and mother during the postpartum phase (14; 15), thus we should pay close attention to measure mothers' satisfaction through care nursing quality they obtain in addition how this can be used to enhance the provision of medical services during the postpartum period (16)

The significance of mother satisfaction with nursing care quality providing in pediatric section cannot be overestimated (17), this study is aimed at the mothers who have been provided with nursing care quality who are not satisfied or satisfied, also, tend to describe their attitudes to nursing care more favorably, which can ultimately lead to obtaining favorable treatment outcomes, it is also vital to point out that the mothers who are not satisfied with nursing care may be discouraged to seek any future nursing care treatments of their children, thereby, it is crucial to ascertain that the of nursing care quality practices within the pediatric.

### **Study Aim:**

This study aimed to measure the satisfaction of mothers' concerning nursing care quality at the pediatric wards in hospitals of Mosul

### **Study Objectives:**

1. To assess total levels satisfaction for mothers' concerning hospital management services in the study
2. To measure total levels satisfaction for mothers' concerning nursing care quality at the pediatric wards in hospitals of Mosul
3. To find-out the association relationship amongst variables demographic with selective study results

**The Design Study:** A study cross-section design implemented at pediatric wards in hospitals of Mosul to determination of the study remained to evaluate level mothers' satisfaction through care

nursing quality between 1st of Jun till 16th of August/ 2025.

**The Sample:** That sample is a non-probability (Purposive) one, used in the present study. The sample size was made up of (200) mothers who were admitted together with their diseased children to the pediatric division of five Mosul Hospitals; Al-Khansa Hospital (42) mothers, Ibn Their hospital (70) mothers, Al-Salam hospital (30) mothers, General Mosul hospital (38) mothers and Ibn Sina hospital (20) mothers.

**Inclusion Criteria:** mothers carried to pediatric wards in the target hospitals. Those mothers who consented and remained accomplished to participate likewise willing toward complete the study questionnaire instrument.

**Exclusion Criteria:** The mother does not get access to the pediatric department (emergency and wards) at the selected hospitals. Mothers who had not consented then remained eager to take part likewise not prepared to complete the study questionnaire instrument. Some illustrations of pilot study.

**The Study Instrument:** As a developed questionnaire, it has been cited in Rashid S, and Ameen W., (2025) (18) as well as by Mukerenge, N. et.al., (2025) (19). The researchers have adapted it to the purposes, literature review, as well as the opinion of experts in the study, and made available to the mothers' samples to quantify the mother satisfaction on nursing care quality that comprises two parts. The initial section relates to the demographic data, whereas the second section was referring to the satisfaction in mothers who believe that they receive high quality of nursing care, and it has numerous sections:

Part I: The demographic data entails age of the mother, place, education, what the mother does, the stage child, children number in family, place in child family where is, child diagnosis.

Part II: Mothers' satisfaction with the nursing care quality contains five sections in addition measures according to section contains many questions as prescribed the section one deals with the provide great respect at the hospital and contains five questions related to the environment of the

hospital. section two that dealing with hospital services and contains five questions related to general nursing care service. section three which deals with communication inside the hospital contains ten questions related to providing communication with clear information about the child's illness, also about telling clearly about the management. section four deals with management and treatment and contains ten questions related to management and caring also giving medication to the child. section five deals with nursing care at the hospital and contains seven questions related to satisfaction mothers with nursing care quality

**Instrument Scoring:** The satisfaction levels for mothers scored with a magnitude of each part based on the Likert scale (Park, C., 2023) (20) Very satisfied = (5) Satisfaction score. Satisfied=4-point Satisfaction point. Neutral = 3 points out of 5 Satisfaction rating. Dissatisfied = 2 Satisfaction rating. Very dissatisfied = 1 Satisfaction rating.

**Validity Testing:** (14) experts with various backgrounds lacking or having no medical and nursing backgrounds took part in testing the questionnaire. Using the questionnaire, the experts were approached to discuss the content of the questions with regard to content clarity, relevancy and sufficiency. They were given consideration on how they responded and some of the items were altered. They made such modifications based on their suggestions, recommendations and valuable comments. The answers would depend on the responses given by the expert, which either would be in agreements or disagreements. There were adjustments made at every part and section of the measurements of the questionnaire.

**Reliability Testing (Study Pilot):** Previous to commencement of applied aspect of study, a study pilot remained implemented amongst 23 to 26 Jun/ 2025. The instrument of questionnaire was used. It individually contained (20) mothers who non-randomly chose Ibn their Teaching Hospital to evaluate the inner consistency of the questionnaire (this sample was not a part of the original study sample). The researchers also analyzed the mother through the Cronbach Alpha measurement and the results came out (0. 807) using the SPSS version 26.

**Data Collection:** Five Mosul Hospitals were used to collect the data in terms of Al-Khansa Hospital (42) mothers, Ibn Their Hospital (70) mothers, Al-Salam Hospital (30) Mothers, General Mosul Hospital (38) mothers. Through this instrument questionnaire implemented in the time frame which is between 6 to 20 of July / 2025

**Data Analysis Methods:** the Package Statistical of Science Social (SPSS) 26 version is rummage-sale

## Results

**Table (1): The Sample Consequences for Characteristics Demographic of Mothers in Study**

Demographic	Items	Freq	%
Mother Age	(20-29)	94	47.0
	(30-39)	86	43.0
	(40-49)	18	9.0
	(50-59)	2	1.0
Residence	Urban area	140	70.0
	Rural area	60	30.0
Educational Level	Illiterate	64	32.0
	Read and write	68	34.0
	Elementary	40	20.0
	Intermediate	4	2.0
	Preparatory	8	4.0
	Bachelor's degree	14	7.0
	Postgraduate studies	2	1.0
Mother's profession	Employee	12	6.0
	Housewife	188	94.0
<b>Total</b>		<b>200</b>	<b>100.0</b>

(Freq) Frequency, (%) Percentage.

to evaluate information that is explored. The statistical methods that have been followed in the analysis of the dataset and the successive analysis of results are as given below: Percents and frequency. The reliability of the instruments used in the study is tested by inference statistical methods of data analysis and in this case, the Pearson coefficient correlation (r-test). In such a manner, the level of inferential criterion is established to be 0.05 (p-value).

**Table (2): The Sample Consequences of Characteristics Demographic for Children in Study**

Demographic	Items	Freq	%
Child stage	Neonate age	22	11.0
	Infancy age	40	20.0
	<b>Toddler age</b>	<b>70</b>	<b>35.0</b>
	Preschool age	26	13.0
	School-age	42	21.0
Number Children in family	(1-2)	54	27.0
	<b>(3-4)</b>	<b>84</b>	<b>42.0</b>
	(5-6)	52	26.0
	(7-8)	10	5.0
Child sequence in family	<b>(1-2)</b>	<b>88</b>	<b>44.0</b>
	(3-4)	72	36.0
	(5-6)	34	17.0
	(7-8)	6	3.0
The hospital admission	<b>Ward Unit</b>	<b>136</b>	<b>68.0</b>
	Emergency Unit	64	32.0
Diagnosis of the child	Diabetes Mellitus	4	2.0
	Respiratory Tract Disease	46	23.0
	<b>Gastrointestinal Tract Disease</b>	<b>68</b>	<b>34.0</b>
	Urinary Tract Disease	6	3.0
	Neonatal Sepsis	12	6.0
	Neonatal Jaundice	2	1.0
	Blood Disease	32	16.0
<b>Total</b>		<b>200</b>	<b>100.0</b>

Frequency (Freq), Percentage (%)

**Table (3): The Arithmetical Results of Total Mothers' Satisfaction Levels Concerning the Hospital Management Services in the Study**

	Estimate	Freq	%
Provide Great Respect at the Hospital	Very dissatisfied	6	3.0
	Dissatisfied	0	0.0
	Neutral	22	11.0
	Satisfied	84	42.0
Hospital Services	<b>Very satisfied</b>	<b>88</b>	<b>44.0</b>
	Very dissatisfied	6	3.0
	Dissatisfied	0	0.0
	Neutral	40	20.0
Communication inside the Hospital	<b>Satisfied</b>	<b>114</b>	<b>57.0</b>
	Very satisfied	40	20.0
	Very dissatisfied	2	1.0
	Dissatisfied	12	6.0
Management and treatment	Neutral	22	11.0
	<b>Satisfied</b>	<b>102</b>	<b>51.0</b>
	Very satisfied	62	31.0
	Very dissatisfied	4	2.0
Hospital Environment	Dissatisfied	6	3.0
	Neutral	18	9.0
	<b>Satisfied</b>	<b>102</b>	<b>51.0</b>
	Very satisfied	70	35.0
	Dissatisfied	8	4.0
	Neutral	38	19.0
	<b>Satisfied</b>	<b>80</b>	<b>40.0</b>
	Very satisfied	74	37.0
<b>Total</b>		<b>200</b>	100

Frequency (Freq), percentage (%).

**Table (4): The Statistical Results for Mothers' Satisfaction Regarding the Nursing Care at the Hospital in the Study**

	Estimate	Freq	%
On admission, child's medical history was known by the nurses	Very dissatisfied	58	29.0
	Dissatisfied	26	13.0
	Neutral	24	12.0
	Satisfied	44	22.0
	<b>Very satisfied</b>	<b>48</b>	<b>24.0</b>
During acute situations, there is a nurse to support immediately	Very dissatisfied	2	1.0
	Dissatisfied	2	1.0
	Neutral	42	21.0
	Satisfied	70	35.0
	<b>Very satisfied</b>	<b>84</b>	<b>42.0</b>
The medicine is taken on time by nurses	Very dissatisfied	14	7.0
	Dissatisfied	8	4.0
	Neutral	16	8.0
	Satisfied	76	38.0
	<b>Very satisfied</b>	<b>86</b>	<b>43.0</b>
Daily nursing care procedure for child	Very dissatisfied	6	3.0
	Dissatisfied	4	2.0
	Neutral	18	9.0
	Satisfied	84	42.0
	<b>Very satisfied</b>	<b>88</b>	<b>44.0</b>
The nursing care team cares about child's needs	Very dissatisfied	4	2.0
	Dissatisfied	6	3.0
	Neutral	24	12.0
	<b>Satisfied</b>	<b>84</b>	<b>42.0</b>
	Very satisfied	82	41.0
Nurses know the ethical and healthcare code about our baby	Very dissatisfied	22	11.0
	Dissatisfied	6	3.0
	Neutral	46	23.0
	<b>Satisfied</b>	<b>70</b>	<b>35.0</b>
	Very satisfied	56	28.0
Taking child to special medications, which are administered inside the hospital	<b>Very dissatisfied</b>	<b>66</b>	<b>33.0</b>
	Dissatisfied	54	27.0
	Neutral	34	17.0
	Satisfied	26	13.0
	Very satisfied	20	10.0
<b>Total</b>		<b>200</b>	<b>100.0</b>

Frequency (Freq), percentage (%)

**Table (5): The Arithmetical Results of Total Mothers' Satisfaction Level Regarding Nursing Care at the Hospital in the Study**

	Estimate	Freq	%
Total Level Satisfaction Mothers'	Very dissatisfy	6	3.0
	Dissatisfy	22	11.0
	Neutral	46	23.0
	<b>Satisfy</b>	<b>70</b>	<b>35.0</b>
	Very satisfy	56	28.0
<b>Total</b>		<b>200</b>	<b>100.0</b>

Frequency (Freq), percentage (%)

**Table (6): Statistical Association Relationship between Demographic Characteristics (Mother and Child) with Selected Study Results Regarding Nursing Care Quality**

	Hospital Environment	Hospital Services	Provide Great Respect	Communication	Nursing Care	Management and treatment
Mother Age	0.434	0.799	0.389	0.477	0.785	0.516
Residence	0.329	0.328	0.620	0.887	0.154	0.480
Educational Level	0.590	0.290	<b>0.012</b>	<b>0.046</b>	<b>0.024</b>	<b>0.044</b>
Mother's profession	0.097	0.669	0.949	0.645	0.654	0.387
Child stage	<b>0.006</b>	0.547	0.646	0.346	0.254	<b>0.021</b>
Children number	0.543	0.278	0.451	0.308	0.763	0.304
Sequence child	0.493	0.125	0.684	0.971	0.453	0.413
Child diagnosis	<b>0.005</b>	<b>0.000</b>	0.961	0.578	<b>0.039</b>	0.159

Significance at ( $\leq 0.05$ ) p. value

## Discussion

### The Characteristics Demographic of Mothers Sample in Study

The demography of sample mothers in the study is presented in table (1) that shows that 47.0% (94) of mothers of the study sample were aged within the range of (20-29) years old. 70.0% (140) of the mother's sample reside in the urban area. 34.0% (68) of the mother's sample level of education was read and write. 94.0% (188) of the mother's sample occupation was a house wife. The results provided here are in line with the results that have been described by Mohammed, S. et al. (2025). The two participants of the survey mentioned in the latter study are made up of 235 mothers whose average age was  $29.83 \pm 5.76$  years old. Most of them (34.9%) were between the age of 31

36 years and yet another 32.8 percent fitted in the 19-25 age brackets. All the respondents were married and Muslims and majority (91.1) were unemployed. As per level of education, 23.8 percent was educated at primary education and 17.0 percent were educated at bachelor or diploma. The vast majority of them (62.6%) lived in cities and 163.3 percent had one or fewer children (61.7 percent). The majority also chose the middle social-economic scale (73.0 percent). Most of the husbands of the participant were people who had attended primary education (23.0%) or had a bachelor/diploma degree (23.0%). The level of economy proved to be mostly average (88.5%) and with respect to the study variables taken into consideration, the means of knowledge and attitude scores were  $33.99 \pm 2.89$  and  $30.48 \pm 3.76$  respectively, hence

establishing a fair level satisfy towards weaning process (21)

### **The Characteristics Demographic of Child Sample in Study**

As demonstrated in the table (2), profile demographic of child sample in study indicated that, 35.0 percent (70) of the children stage were at toddler stage. 42.0 percent (84) of the children sample numbers in the family were (3-4) child in the family. 44.0 percent (88) of the children sample sequence in the family were (1-2) child sequence. 68.0 percent (136) of the children sample admission at ward unit. 34.0 percent (68). The findings of Fatah S. et.al., (2022) clarify on the paradox as it shows that about 31.3 percent of the number of children enrolled which is 1-3 years of age with the standard deviation of 6.35 and the 95 percent confidence interval of 2.93-68.8 percent of children total remained male. In addition to this, 47.5 percent of the subjects were born second in family. size family recorded 45 members in 58.8 percent of the instances with a standard deviation of  $1.58+/-0.495$ . The prevalence of inguinal hernia was 26.3 percent, 18.7 percent presented with hydrocele, and circumcision was the prevalence of 15.0 percent among the children in the cohort (19)

### **The Total Mothers' Satisfaction Levels Regarding the Hospital Management Services in the Study**

The statistical output of the total study-satisfaction levels of the mothers according to the hospital management services were as follows; the total respect levels were 44.0% (88) of the sample at the great respect level in the hospital; 57.0% (114) of the sample at the satisfied level on the hospital services level; 51.0% (102) of the sample at the satisfied level on the communication inside the hospital level; 51.0% (102) of the sample at the satisfied level of the management and treatment; 40. The current findings on a topic within the nursing studies field contradict the results of Evans, P., et.al. (2021) that explored the reaction to the statements related to care nursing. Most of agreed sample with the statement positive in relation to role of the nurse towards the welfare of the patient; on the other hand, few gave consensus to the affirmative statement in relation

to the issues about the attitude of the nurse that were considered as salient. The most significant deviations have shown up in the following: 50(43.4%) agreed that the nurses have no consideration regarding the emotions of the patients, 55(47.8%) attested that the nurses have aggressive and hostile attitudes, 57(49.6%) asserted that the nurses behave in an unruly way, 43(37.4%) maintained that the nurses are untidy, and 46(40%) found that nurses ignore their work while 52(45.2%) concluded that nurses are disorganised. All these observations indicate an overall negative assessment on the nursing care with 83(72.20) negatively rating their opinion and 32(27.80) positively rating the nurse perceptions in particular as far as the respondents are concerned (23)

### **The Mothers' Satisfaction Concerning Nursing Care in Hospitals Study**

As shown in the table (4), the statistical outcomes pertaining to satisfaction mothers towards nursing care in study hospitals, it is 29.0 percent (58) of the sample that fell at the very dissatisfied level in terms of knowing the medical history of the child upon his/her admission to the hospital. In acute incidences, availability of a nurse to assist in instances was 42.0% (84), at the high-end mark of very satisfied level of the sample. Nurses on time use of the medicine was rated at very satisfied level, representing 43.0% (86) of the sample. Very satisfied level in the nursing process of child has achieved 44.0 percent (88) of the sample on daily nursing care procedure. The nursing care team takes interests of needs of a child achieved a satisfied level of 42.0 percent (84) of the sample figure. The nurses are aware of the ethical and health code regarding our baby as being 35.0% (70) in sample representing the satisfied level. Taking child to special medications, with administration within the hospital was 33.0 percent (66) of the sample at very dissatisfied level. These findings are in line with Rashid S, and Ameen W., (2025), which shows in their research that most mothers came out as being very satisfied with interpersonal dimensions of nursing care (be it privacy, emotional support, and staff responsiveness). But satisfaction was at moderate levels when it came to reports about care procedures and taking part in any decisions., there is a greater level of moderate satisfaction. A

striking number were mothers under half who stated that their feelings regarding satisfaction was a moderate rating whereas two fifths recorded that they were satisfied at a high level. The average score is 30.05 with the standard deviation of 6.861(18)

### **The Total Mothers' Satisfaction Levels Concerning Nursing Care in Study Hospitals**

The statistical study discoveries of total levels satisfaction of mothers towards nursing care in study hospital that 35.0% (70) of the total sample results indicates total satisfaction level on the nursing care at the hospital is at a satisfied level. Such findings are congruent with those of Ibrahim, S., et.al., (2025) found in their cross-sectional research that 74.3 percent of their mothers remained during the puerperium period expressing satisfaction with the inpatient hospital setting quality in publicly funded hospitals in Mogadishu, Somalia. It was in their findings that there was an increase in the level of satisfaction with the good treatment, communication and timely nursing care (24).

### **The Association Relationship between Demographic Characteristics (Mother and Child) with Selected Study Results Regarding Nursing Care Quality**

The statistical association relation between demographic characteristics (mother and child) with selected present study results regarding nursing care quality is indicated by the table (6). There was no significant association relation between most demographic characteristics (mother and child) and selected present study results regarding nursing care quality at p. value (6) EAL and was significant only with the hospital environment, and also the hospital services, they provide great respect, the communication, child diagnosis, the nursing care, management and treatment only. Its results coincide with those of Rocha et al. (2023) who stated that the maternal level of education correlates strongly with several indicators of child development in low-income Brazilian families with a 2.5 times overall chance developmental delay in at least one domain at p. value of  $\leq 0.05$  (25). In a similar manner, Al-Hasnawi and Aljebory (2023) concluded that most demographic factors showed no significant

correlation with overall performance in nursing care in teaching hospitals in Najaf City, which proves our observation correct that the demographic characteristics tend to have minimal effect on the quality of care although significant associations could only be observed in a certain area at p. value  $\leq 0.05$  (26).

### **The Conclusion:**

The overall satisfaction value of the hospital management services in the study, the overall excellence of the mothers regarding the hospital services is at very satisfied level the overall house communication being inside the hospital, the overall management and treatment, as well as the overall hospital environment are at satisfied level. The summative of mothers' satisfaction level on the nursing care in the hospital in the study was at satisfied level.

The major demographic characteristics (mother and child) of the population showed non-significant association relationships with both selected results of the study in terms of nursing care quality, except the hospital environment and child stage, child stage and child diagnosis, and child diagnosis and hospital services, hospital services and mothers educational level, communication and mothers educational level, nursing care and mothers educational level, management and treatment and mothers educational level.

### **The Recommendations:**

1. Nineveh Health Directorate at Ministry of Health to enhance the intensity of the influence of the positive or high level of quality nursing care as a component of the healthcare delivery system that offers to all patients in all departments of hospitals
2. All nurses must undergo special programs, training courses, and workshops on significant issues in defining the patient level and parent level satisfaction in the quality of nursing care at all hospital departments.
3. There is one more study in the area of patient level satisfaction in the quality of nursing care healthy system.

## Ethical Approval: -

The ethical approval of the relevant value was given first under the / Committee of Collegiate for Research Medical Ethics at University of Mosul (CCMRE- NU- 25- 127). Then informed consent was obtained by the committee ethics in Directorate of Nineveh Health to approve the study. Eventually, the selected Hospitals in Mosul.

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