

## Research Article

# Assessment of the Satisfaction of Postnatal Mothers with the Technical Aspects of Nursing Care during Immediate Postnatal Natal Period at Kenyatta National Hospital

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**Abstract: Background:** Satisfactory nursing services received by postnatal mothers within the first 72 hours after birth in the health care facilities are a source of joyous memories and experiences of childbirth. **Objective:** The aim of the study was to assess the satisfaction level of postnatal mothers with the technical aspects of nursing care in postnatal wards at Kenyatta National Hospital (KNH). **Materials and Methods:** This was a descriptive cross-sectional study; quantitative approach was used. Sample size was 261 postnatal mothers, determined using simple random sampling. Ethical approval was obtained from the KNH-University of Nairobi (UON) Ethics and Research Committee. The data edited, cleaned and numerically coded to facilitate analysis. The data was entered using excel sheet. Descriptive statistics was analyzed and presented using charts and tables. Inferential statistics analyzed by use of correlation and regression of variables and results given using output tables. **Results:** Majority (33%) of the respondents were not satisfied (1) with technical aspects of nursing care while only 11% were fully satisfied (5). Satisfaction level mean score of 2.47 (49%) at level 2 (satisfied) in a Likert scale of 1-5 was revealed. **Conclusion:** Based on this study finding, the level of postnatal mothers' satisfaction with technical aspects of nursing care at KNH postnatal wards was below average. The immediate postnatal care should be designed to meet the expectations of mothers admitted in the postnatal wards.

**Keywords:** Immediate postnatal care, Postnatal mothers, Postnatal wards, Satisfaction, Technical aspects of nursing care.

## Introduction

Child birth poses a unique experience to every woman. The experience stays with the woman for a life time [1]. The immediate postnatal period starts after the delivery of the placenta and ends after 72 hours of care before discharge from the health facility. Technical aspects of nursing care are the individualized nursing care activities to the postnatal mother and baby during the immediate postnatal period. As the reproductive organs gradually go back to the normal size and shape, many physiological, social and emotional changes occur [2]. Globally, morbidity and mortality rates increase among mothers and newborn during the immediate postnatal period particularly in Sub-Saharan Africa [3]. In Kenya, low utilization of maternal healthcare services has long been linked to

poor postnatal care services [3]. These negative experiences caused by unsatisfactory care during the immediate postnatal period for the mother and her newborn affects the subsequent care programs along continuum of care. Anecdotal evidence indicates that many mothers develop postnatal complications after discharge from the city hospitals, similarly, few mothers return for postnatal checkup after two weeks post-delivery. Despite the evidence on need for assessment of satisfaction level among postnatal mothers, the researcher found little or no study conducted on the same in the postnatal wards Kenyatta National Hospital (KNH).

The knowledge on the degree of satisfaction helps the institution identify areas to improve on if the expectation of the client exceeds what the health care facility is offering. It identifies gaps on health care delivery thus helping in planning and training caregivers to help enhance skilled delivery of care. The study aimed at identifying the technical aspects of nursing and assessing the level of satisfaction of mothers with immediate care at the Kenyatta National Hospital (KNH) postnatal wards.

## **Methods**

### **Study Design**

The study used a descriptive cross-sectional quantitative approach.

### **Study Setting**

The study was conducted in the Kenyatta National Hospital, Reproductive Health Department, postnatal wards.

### **Study Population**

This were postnatal mothers admitted in the general postnatal wards at KNH.

## **Data Collection and Management**

### **Tools**

The researcher adopted and modified Jipi Postnatal Satisfaction with Nursing Care Questionnaire (JPSNQ) [4].

The questionnaire had 22 questions gauged on a 1–5-point Likert scale.

The scores were defined as

5 = fully satisfied,

4 = moderately satisfied,

3 = minimally satisfied,

2 = satisfied and

1 = not satisfied.

## **Variables**

The dependent variable was satisfaction of postnatal mothers with immediate care. Independent variable was technical aspects of nursing care during immediate postnatal period.

## **Procedure Sample Size**

$$\frac{1.96^2 \times p(1 - p)}{d^2}$$

The desired sample size was determined using the fisher et al. [15].

Where:

n=desired sample size (when the population is larger than 10,000).

z= standard normal deviation which is equal to 1.96 corresponding to 95% confidence interval.

P=prevalence of the issue under study.

$$Q=1-p$$

D=confidence limit of the prevalence (p) at 95% confidence interval  $1-0.95=0.05$ .

Degree of accuracy desired for the study was hence set at 0.96.

Substituting the figures in the above formula.

$$n=1.96^2 \times 0.5 \times 0.5 / 0.05^2$$

$$n=384$$

Since the target population was less than 10000, the formula used adjusted the sample size.

The total number of postnatal mothers in the KNH general postnatal wards in the year 2018 January to December was 9794. The average number of postnatal mothers in the KNH postnatal wards per month in 2018 was

$$9794/12=817$$

$$nf = n/1 + (n/N)$$

Where:

nf = desired sample size (when the sample is below 10000)

n = sample size (when population is more than 10000) calculated 384

N = average number of mothers who delivered in KNH in a month (817)

Therefore,  $n f = n/1 + (n/N)$

$$= 384/1 + (384/817)$$

$$nf = 261$$

The estimated sample size was 261 postnatal mothers. The data collection period was two months.

### **Sampling Technique**

The sampling included postnatal mothers admitted in postnatal wards, a simple random sampling technique was used to get a sample size of nf (261).

### **Data Analysis and Presentation**

The quantitative data was edited, cleaned, numerically coded, entered and analyzed using excel and Stata. Descriptive statistics was analyzed using mean, standard deviation and percentages and presented using figures and tables.

To obtain a mean score on each subscale, the researcher summed up the scores in each subscale, later divided by the number of items in the subscale. To obtain the overall mean, researcher aggregated the satisfaction level of each respondent divided by the sample population and to obtain the general level of satisfaction ranging within the Likert scale of 1-5.

### **Ethical Considerations**

Approval from UON-KNH Ethical and Research Committee was obtained. Research and programme unit KNH was notified. A written and verbal consent was obtained from each participant before obtaining information without coercion.

### **Results**

#### **Satisfaction of Respondents with Technical Aspects of Nursing**

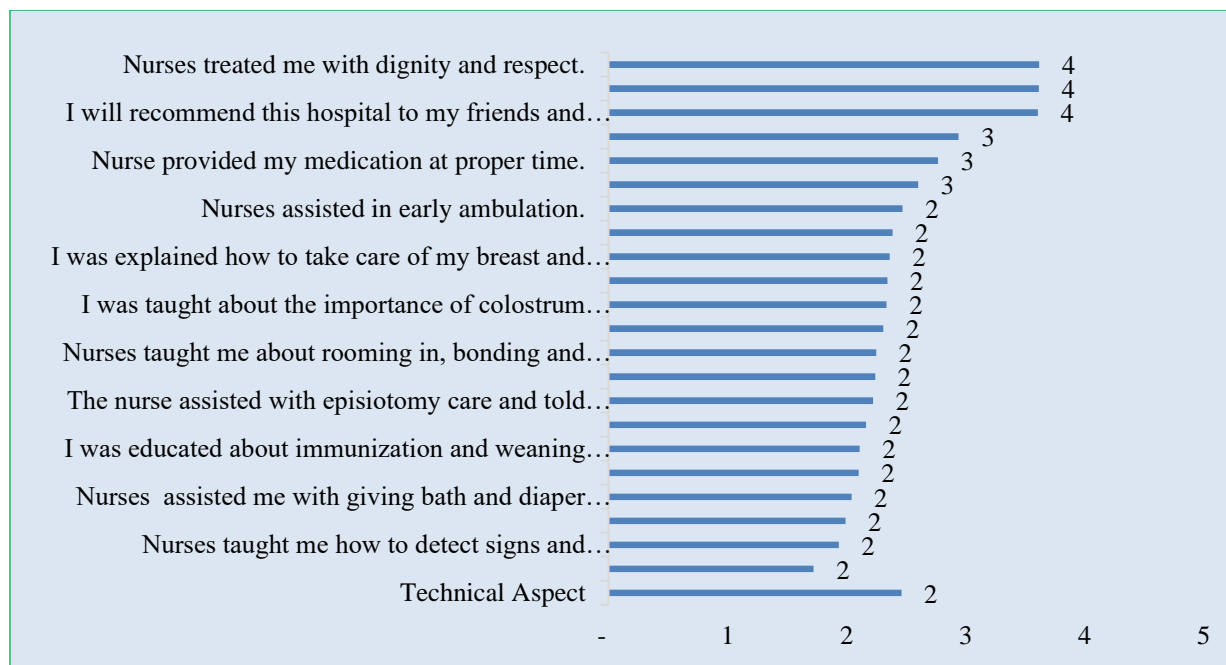
Most respondents, 86 (33%) was satisfied (2) with technical aspects of nursing care with a mean score between 1.73 and 3.63 and an overall mean score of 2.47 (29 %) in the table below.

**Table 1. Average of each level of satisfaction with technical aspect of nursing care**

<b>Frequency</b>	<b>NS (1)</b>	<b>S (2)</b>	<b>MnS (3)</b>	<b>MS (4)</b>	<b>FS (5)</b>	<b>Mean</b>	<b>SD</b>
Advised on personal hygiene	33%(85)	26%(68)	21%(54)	10% (25)	10% (26)	2.39	0.08
Assisted in perineal care	33%(85)	28%(71)	23% (59)	7% (17)	10%(26)	2.35	0.08
Assisted in early ambulation.	28%(71)	26%(6)	27%(7)	11%(28)	9% (23)	2.49	0.08
Regularly checked vital signs.	24% (62)	14% (37)	25% (64)	17% (43)	20% (52)	2.95	0.09
Advised on uterine involution	49%(126)	17% (45)	16% (40)	10% (27)	8% (20)	2.12	0.08
Informed about breast care	34%(87)	26% (68)	20% (51)	11% (27)	9% (24)	2.37	0.08
Informed regarding nutrition, sleep and rest	41%(106)	24% (62)	19% (49)	8% (22)	8% (20)	2.18	0.08
Got my medication at proper time.	30% (77)	13% (33)	23% (60)	18% (47)	15%(39)	2.78	0.09
Taught to detect excessive post-delivery bleeding	40%(102)	24% (61)	19% (48)	10% (25)	8% (21)	2.25	0.08
Advised on postnatal exercises.	48%(122)	27% (68)	12% (30)	7% (18)	7%(18)	2.01	0.08
Informed on episiotomy care	36%(92)	28%(72)	22%(58)	7%(18)	7%(18)	2.23	0.08
Taught family planning & postnatal follow up	60%(156)	21%(54)	8%(21)	8%(22)	3%(7)	1.73	0.07
Assisted on baby care	43%(111)	27%(70)	19%(48)	5%(13)	6%(15)	2.05	0.07
Informed on exclusive breast-feeding	35% (91)	24% (61)	22% (56)	11% (29)	8% (21)	2.34	0.08
Assisted to position during & burp my baby after breast feeding	30%(77)	19%(48)	25%(64)	15%(39)	12%(30)	2.61	0.08
Information on signs of neonatal complications.	54%(139)	20%(51)	14% (35)	6%(16)	7%(17)	1.94	0.08
Information on rooming in & bonding baby.	35%(88)	28%(71)	23%(58)	8%(21)	7%(17)	2.27	0.08
Advised on immunizations & weaning	34%(88)	36%(93)	18%(45)	6%(15)	6%(15)	2.14	0.07
Treated with dignity & respect.	6%(15)	14%(36)	22%(58)	27%(69)	31%(80)	3.63	0.07
Asked on values and preference for care.	30%(77)	32%(82)	23%(60)	8%(22)	7%(18)	2.32	0.07
In future, I would prefer this hospital.	6%(15)	8%(20)	30%(78)	31%(79)	26%(66)	3.36	0.07
I will recommend this hospital to my friends and relatives.	5%(14)	9%(23)	29%(74)	33%(85)	24%(62)	3.62	0.07
<b>Technical Aspect</b>	<b>33%(86)</b>	<b>22%(57)</b>	<b>21%(54)</b>	<b>12%(32)</b>	<b>11%(29)</b>	<b>2.47</b>	<b>0.04</b>

**Overall satisfaction with technical aspects of nursing care**

Figure below shows that respondents rated their overall level of satisfaction with technical aspects of nursing care at level two of satisfaction (satisfied).



**Figure 1. Weighted average of technical aspects of postnatal care in a Likert point scale**

## Discussion

### Main findings of the study

Majority respondents were postnatal mothers aged between 22 and 30 years. Reason being that this age group occupy the peak childbearing age [5]. Satisfaction with technical aspects of nursing care involves nursing care that meet the wishes of an individual resulting to a feeling of contentment. Satisfaction is also a subjective feeling of cognitive and emotional responses to the environment through which individual announces the fulfillment of their needs. Patient satisfaction is an indicator of perceived care quality [6]. In Kenyatta National Hospital, majority (33%) postnatal mothers were not satisfied (1 out of 5) with technical aspects of nursing care. In addition, 22% postnatal mothers were only satisfied [2], only a few (11%) postnatal mothers were fully satisfied. The mean score of technical aspects was 2.47(49%) below average. This indicates laxity among nursing staff in providing health assessment and health education to postnatal mothers in the postnatal ward. It is the expectation of the community that postnatal mothers demonstrate knowledge and confidence in the ability to provide care for themselves and the newborn before discharge from the hospital. Nurses spend long hours with the mothers in the postnatal wards compared with other staff; this may increase the expectations of mothers in care provided by the nursing staff. However, timely nursing care is key to achieving good outcomes during immediate postnatal period. In addition, informed and empowered mothers feel confident leaving the hospital this translating to higher satisfaction scores. During the immediate postnatal period, nursing assessment, information and care provided postnatally was source to increased confidence and allayed concerns boosting satisfaction [7].

Measurement of vital signs was not satisfying among many mothers in the study. While measurement of vital signs helps in early detection of complications during the immediate postnatal period, lack or inconsistent measurement of vital signs delay diagnosis resulting to increased maternal and neonatal morbidity. In Naivasha, Kenya, a cross sectional study was done in the maternity unit to monitor assessment of vital signs within 72 hours after delivery. The study concluded that the monitoring of vital signs was not optimal. The inconsistent monitoring of vital signs was associated with the large number of postnatal mothers admitted in postnatal wards and low nurse patient ratio [8]. In Nepal 95.5% of mothers were satisfied with blood pressure monitoring among whom 50.6 % were very satisfied [1]. A similar study done in Switzerland on immediate postnatal care identified gaps in checking of mothers' vital signs with only 78 % of respondents having their blood pressure measured. Tachycardia or bradycardia may be a sign of hemorrhage that may require immediate attention, when pulse is not monitored the mothers, condition may change

unnoticed [8]. In Switzerland, only 25% mothers had their pulse monitored during immediate postnatal period. The inconsistent monitoring of vital signs was associated with the prolonged stay in hospital and large admitted mothers in postnatal wards thus low nurse patient ratio [9].

In Nigeria majority 94% of postnatal mothers expressed satisfaction with drug administration, contradicting the current study findings. The postnatal mothers' satisfaction is optimal when the postnatal period is uneventful [10]. However, failure to administer medications on time worsens control of preeclampsia or eclampsia. It also increases cases of neonatal and puerperal sepsis. In the study findings 30% of mothers were not satisfied with the timing of their medications, only 15% were fully satisfied with timing of their medications. In the postnatal wards, process of ordering and administration of medications is not always accessible especially at night. The high number of patients influences the period of ordering and duration of issue from pharmacy and the time the medications reach the patient. Puerperal sepsis claims 10 percent of maternal deaths, it also increases neonatal morbidity and mortality [7].

The study revealed that 30% of mothers were not satisfied with support on personal hygiene; only 10% were fully satisfied on information regarding hygiene. In addition, 43% were not satisfied with advice on care of baby cord stump and eye care. They were satisfied with the assistance in ambulation and perineal hygiene. In mild eclampsia, diet and nutrition including exercise and regular monitoring can be enough remedy. Lack of readily available warm water in the bathrooms for mothers posed a great challenge to hygiene of patients. Timely bath is highly recommended in milk let down and relaxation. It's a key method of prevention of infection following delivery [7]. The provision of one tea yarn to warm water for mothers in the wards was not enough, again the low staffed nursing team was required to regulate and maintain filled tea yarn with water. This resulted to lack of available warm water to meet the hygiene needs of postnatal mothers.

Immediate Postnatal care satisfaction includes experiences in getting treatment in a comfortable, caring, safe environment. It also involves help and support in care of the baby, having right information to make choices and feel in control, being talked to and listened to as an equal, as well as being treated with respect and dignity [11]. To achieve full satisfaction of mothers is not a stand-alone concept but it touches every aspect of the organization, involves everyone whether they have a direct relationship with postnatal mothers or not [5].

The study revealed that most postnatal mothers were not satisfied with the information on family planning and advice on postnatal follow up. Moreover, lack of information on family planning reduces spacing between pregnancies and may result to complications in the postnatal period including anemia [9]. The short time that mothers spend in the postnatal ward after delivery leave the nursing staff with no time for patient education. The study findings were similar to a study done in Egypt where postnatal mothers were dissatisfied with information on postnatal exercises, family planning methods and postnatal follow up visits [12].

Regarding dignified and respectable nursing care, majority were fully satisfied only few mothers were not satisfied. The mothers felt warmly welcomed them to the wards. Dignified nursing care raises mothers' satisfaction with care and increases their health seeking behavior. In Ethiopia, maternal satisfaction study revealed that most postnatal mothers were highly satisfied with courtesy and respect accorded to them by staff during postnatal care [13]. In addition, Pumwani maternity reported similar findings with majority mothers indicating full satisfaction with courtesy and respect accorded to them by the staff [14].

## **Conclusion**

The mothers admitted in KNH postnatal wards satisfaction level was below average with technical aspects of nursing care during the immediate postnatal period.

## **Recommendations**

The reproductive health department in Kenyatta National Hospital should come up with measures to improve the nursing care services in order to help raise postnatal mothers' level of satisfaction. The infrastructure in the ward should meet the mothers' expectations. Periodic assessment of mothers' satisfaction should be practiced to optimize care.

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## **Conflict of interest**

There was no conflict of interest.

## **References**

1. Panth A, Kafle P. Maternal satisfaction on delivery service among postnatal mothers in a government hospital, Mid-Western Nepal. *Obstetr Gynecol Int.* 2018;2018.
2. Lang'at E, Mwanri L. Healthcare service providers' and facility administrators' perspectives of the free maternal healthcare services policy in Malindi District, Kenya: a qualitative study. *Rep Heal.* 2015;12(1):1-1.
3. Gitobu CM, Gichangi PB, Mwanda WO. Satisfaction with delivery services offered under the free maternal healthcare policy in Kenyan public health facilities. *J Environ Pub Heal.* 2018;2018.
4. Varghese J, Rajagopal K. Development of a new tool for evaluating postnatal mother's satisfaction following nursing care: in India. *J Biol Agri Healthcare.* 2012;2(5):7-19.
5. Zulu M, Chanda D. Mothers' satisfaction with immediate postnatal care provided at Ndola Central Hospital, Zambia. *Int J Nurs Res.* 2017;3(4):135-144.
6. Ammo MA, Abu-Shaheen AK, Kobrosly S, Al-Tannir MA. Determinants of patient satisfaction at tertiary care centers in Lebanon. *Open J Nurs.* 2014;4(13):939-46.
7. Amdemichael R, Tafa M, Fekadu H. Maternal satisfaction with the delivery services in Assela Hospital, Arsi zone, Oromia region. *Gynecol Obstet (Sunnyvale).* 2014;4: 257.
8. Fredrick K, Karanja NK, Cheserem E, John K, Mwangi C, Dalton W. Adequacy of vital signs monitoring in post delivery mothers at the Naivasha District Hospital of Nakuru County, Kenya. *Int J Med Clin Sci.* 2015;2(1):030-035.
9. Dlamini BR, Ziyane IS, Gule WP. The quality of immediate postnatal care in health facilities in Swaziland: experience of postnatal mothers. *J AIDS Clin Res.* 2017;8(3):672.
10. Ilesanmi RE, Akinmeyer JA. Evaluation of the quality of postnatal care and mothers satisfaction at the university college hospital Ibadan, Nigeria. *Int J Nurs Midwif.* 2018;10(9):99-108.
11. Blunt L. Improving service user experience in maternity services. A report prepared by The Patient Experience Network. The Patient Experience Network. 2014.
12. Jillian A, Al-Battawi SK. Evaluation of postnatal mother's satisfaction with nursing care in El-Shat by maternity university hospital. *IOSR J Nurs Healt Sci.* 2017;6(6):69-80.
13. Nyongesa MW, Onyango R, Kakai R. Determinants of clients' satisfaction with healthcare services at Pumwani Maternity hospital in Nairobi-Kenya. *Int J Soc Behav Sci.* 2014;2(2):011-7.

14. Khadijeh M, Somayyeh OG, Mojtaba MB, Maliheh Z. Mother's Satisfaction of Postpartum Care and Its Relationship with Midwifery Care at Urban Health Centers, Mashhad, Iran. *J Midwif Reprod Healt*. 2016;4(3):679-688.
15. Charan J, Biswas T. How to calculate sample size for different study designs in medical research?. *Indian J Psychol Med*. 2013;35(2):121-126.

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