Development of a New Tool for Evaluating Postnatal Mother's Satisfaction Following Nursing Care: In India

Jipi Varghese

Yenepoya University, University road Derlakkate 575018, Mangalore Karnnataka India

* E-mail: jipivarghese1981@yahoo.com , jipivarghese1981@gmail.com

Abstract

Few instruments are available to assess the postnatal mother's satisfaction with nursing care. This study tests the validity and reliability of Jipi's postnatal satisfaction with nursing care questionnaire (JPSNQ).Descriptive design was used for the study .The sample consisted of 100 postnatal mothers who met the inclusion criteria and the sample was selected using purposive sampling technique. A structured questionnaire schedule was administered to the postnatal mothers respectively. The questionnaire was classified under six domains namely orientation, information, communication, comfort and care, specific to postnatal care and value and preference of postnatal mothers with the total of 39 items. The reliability coefficient of the tool was established using cronbach's alpha method .Cronbach's alpha is the most widely used method for evaluating internal consistency. The reliability co-efficient obtained for postnatal mothers level of satisfaction with nursing care was($r = 0.834$) which indicated that the tool was reliable. The results demonstrated that the subscales within the scale are internally consistent, subscales' Cronbach alpha ranged from 0.720 to 0.847. In addition, all subscales surpassed the 0.70 criterion for reliability and were positively and significant. An assessment of validity was made in terms of (content validity) which were obtained for demographic proforma out of the 10 items, 8 had 100% agreement and two had 90% agreement. Structured questionnaire schedule on mother's satisfaction: There were 39 items in the structured questionnaire schedule on postnatal mother's satisfaction. All had 100% agreement. The newly developed questionnaire is valid and reliable to measures maternal satisfaction with nursing care in inpatient postpartum unit.
Keywords: Development of Instrument, Postnatal Satisfaction, Nursing Care

1.Introduction

Patient satisfaction has received a great deal of attention in medical literature and is an important indicator of quality of care. The meaning of satisfaction has linked satisfaction with degree of congruency between expectation and actual experience. Patient satisfaction is an important health care outcome in today's cost conscious health care arena and is one of the most frequently reported outcome measures for quality of care and provision of health care services. Quality improvement in health care organization requires effective measurement of patient satisfaction and satisfying the consumer is a fundamental principle of quality management (Howell e a and Concato, John 2004 Jan).Therefore understanding mother's level of satisfaction with their child birth experience is relevant to health care providers', administrators and policy makers as an indicator of the quality of maternity care. So evaluation of the nursing services is one the most effective strategy which can be used for improving the quality of maternity care (Hodnett E 2002) , (Jackson J., Chamberlin J., and Kroenke K. 2001).

Nursing is a caring profession. It is an integral part of large health care delivery system. The patient and family have the right to expect that, they will be treated and cared with respect, consideration and understanding. These expectations will be discussed in terms of the patient needs and the ways in which nurses can best meet them. (Hsiu Hung *et al.,*2010) reported that a high level of social support and low level of postpartum stress significantly predicted mothers' satisfaction with the postpartum nursing centers. Therefore, the measurement of satisfaction is relevant to research. Thus, nurse researcher can take up studies on satisfaction in various areas of care.

2. Objectives of the study

To develop a valid and reliable instrument to measure postnatal mother's satisfaction with nursing care provided in the hospital.

3. Methodology

A descriptive study was carried out in Yenepoya Medical College, Yenepoya university, Derlakkatte Mangalore Karnataka state India. Sample consisted of 100 postnatal mothers admitted in the postnatal unit and they were selected by purposive sampling technique. Inclusion criteria was as following mothers who can speak and write Kannada or English ,postnatal mothers who stay in hospital for 3 or more   day ,mother who have undergone full term normal delivery ,and who have received care from diploma nurses(GNM) who have minimum 2 years' experience in postnatal unit. Exclusion criteria were mothers who are not willing to participate, mothers and newborn with medical conditions, those undergone caesarean section and who do not speak or write kannada. Data was collected by administration of structured questionnaire related to postnatal satisfaction with nursing care   which included six domains namely orientation ,information, communication ,comfort and care ,specific to postnatal care and value and preference of postnatal mothers   with 39 items and 10 items in demographic proforma. The reliability coefficient of the tool was established using cronbach's alpha method.

3.1Content validity

An assessment of validity was made in terms of (content validity). This type of validity deals with the extent to which an instrument reflects the meaningful elements of the content without extraneous elements (Burns N, Groove S k 1999) .There is no quantitative index available for this type of validity. Content validity is often judged simply by comparing the content of an instrument with the domains that are intended as the areas to be measured, and sometimes it is judged by seeking expert opinion. To ensure the validity of demographic proforma, structured interview schedule with blue print, criteria rating scale, sample selection criteria, were submitted to 11 experts in the field of obstetrics and gynecology, psychology, obstetrics and gynecology nursing and statisticians. The experts were requested to give their opinion regarding accuracy, relevancy and appropriateness of the content against the criterion rating scale, which had column i.e.   Remarks /suggestions.

3.2 Pre-testing of the tool

The pre- test helps the researcher to determine if respondent can understand the items and if directions are clear. The structured questionnaire   schedule was administered to 100 postnatal mothers in selected hospitals who met the sampling criteria. The time taken by the postnatal mothers to complete the tool was approximately 25-30 minutes.

All the items were clearly understood. The language used in the tool was simple enough for the postnatal mothers to understand. Tools were found to be clear, feasible and there was no ambiguity in language.

3.3 Reliability of the tool

Reliability of the research instrument is defined as the extent to which the instrument yields the same result on repeated measures. It is then concerned with consistency, precision, stability, accuracy, equivalence and homogeneity (Burns N, Groove S k 1999) .To ensure the reliability, the tool was administered to 100 postnatal mothers , who fulfilled the sampling criteria. Respondent did not find any difficulty in understanding and answering the questions. The reliability coefficient of the tool was established using cronbach's alpha method. Internal consistency was evaluated for total items and every subscales using cronbach's alpha coefficient. This type of reliability analysis was chosen because it has been used to assess the reliability of measurements obtained with other patient satisfaction instruments (Portney LG, Watkins MP 1993), (Carey RG, Seibert JH 1993).

3.4 Description of the final tool

Parts 1: Demographic proforma

The development of demographic proforma was based on review of research and non research literature, opinion and guidance of the experts. The demographic proforma consisted of 10 items pertaining to age, religion, type of family, educational qualification, occupation, income, dietary pattern, obstetrical score, prior admission to hospital, reason for hospitalization

Part II: Structured interview schedule

This part of the tool consisted of postnatal 39 items in six areas on mothers satisfaction .The areas of care were grouped under:-

1. Orientation
2. Information
3. Communication
4. Comfort and care
5. Specific to postnatal care
6.Value and preference

The maximum score obtainable by an item was five , the respondents had to place a (✓) in the appropriate column. The total question for postnatal question were 39.The scores (5) fully satisfied, (4) moderately satisfied, minimally satisfied (3), satisfied (2) and (1) not satisfied

The scores graded in percentage

Score	Percentage	Grade
39 – 71	20 -- 36%	NOT SATISFIED (N.S)
72 – 102	37--52%	SATISFIED(S)
103 – 133	53--68%	MINIMALLY SATISFIED(MnS)
134 – 164	69 -- 84%	MODERATELY SATISFIED(M.S)
165-195	85-100%	FULLY SATISFIED(F.S)

3.5 Data Analysis

Data was analyzed using Statistical Package for Social Sciences version (SPSS) 17.0. Descriptive statistics were used to analyze the demographic data.

4. Results

4.1 Table 1 describes the distribution of structured number of questions and its percentage   in each area of care .

4.2 Table 2 and 3 shows the distribution of sample according to their demographic data:

Most (30 %) of the postnatal mothers belongs to the 22-26 years age group. Most (52%) of the antenatal mothers were Muslims and as (28%) of the postnatal mothers were Hindus. (72 %) belonged to nuclear family. (39 %) of the postnatal mothers completed their high schooling as their educational qualification. Most (94%) of postnatal mother choose the particular hospital because of the availability of good doctors. Where as (33%) of postnatal mothers selected the particular hospital because of quality care by the staff nurses.

4.3 Table 4 describes the reliability statistics

Cronbach's alpha was used to find the internal consistency for total scale and its subscales. All subscales demonstrated good internal consistency reliability, with alpha coefficients ranging from 0.720 to 0.847, and 0.834 for the total scale. In addition, all subscales surpassed the 0.70 reliability criterion .These results indicate that the scale, Jipi's postnatal satisfaction with nursing care questionnaire (JPSNQ) is reliable and reproducible.

4.4 Content validity

Demographic proforma: Out of the 10 items, 8 had 100% agreement and two had 90% agreement. *Structured questionnaire   schedule on mother's satisfaction:* There were 39 items in the structured questionnaire schedule on postnatal mother's satisfaction. All had 100% agreement. This indicates that the tool is a valid measure to evaluate postnatal mother's satisfaction with nursing care that they receive during their stay in hospital.

5. Conclusion

Findings of the study concluded that the(JPSNQ) Jipi's postnatal satisfaction with nursing care questionnaire is a valid and reliable instrument for measuring satisfaction of postnatal mothers with nursing care provided in hospital .And this is new instrument to assess the satisfaction of women   with each dimension of nursing care during their postpartum period .

6. Limitation

Purposive sampling technique was used to select the samples, which limits generalizability of study findings. The sample size was relatively small, thus restricting the statistical inferences of results.   Study results are limited to Indian population.

7. Recommendation

The following recommendations are made based on the present study for future study; to evaluate and ensure quality of nursing care this tool can be used in different countries on larger sample. Studies of this kind should be an ongoing process to make the nursing care more effective and to upgrade the nursing profession to the level that satisfies the needs of the patients and treat patients as consumers of health care.

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Jipi's postnatal satisfaction with nursing care questionnaire (JPSNQ).

INSTRUCTION TO THE INTERVIEWER / RESPONDE PLEASE TICK (✓) MARK IN THE APPROPRIATE COLUMN   ACCORDING TO THE MOTHER'S RESPONSE.

TOOL: 1

DEMOGRAPHIC PROFORMA

Code   No   :

1.Age in Years.	
a) 18 -22	( )
b) 22 – 26	( )
c) 26 – 30	( )
d) 30 and Above	( )
2.Religion	
a) Hindu	( )
b) Muslim	( )
c) Christian	( )
d) others	( )
3.Type of Family	
a) Nuclear	( )
b) Extended / Joint	( )
4.Educational Qualification.	
a) No formal Schooling	( )
b) Primary School	( )
c) High School	( )
d) Collegiate Education	( )
e) Any other specify	( )
5.Monthly Income	
a) Below 2000	( )
b) 2001 to 4000	( )
c) 4001 to 6000	( )
d) 6001 and above	( )
6.Occupation	
a) Coolie	( )
d) Agriculture	( )
d) Business	( )
d) Employee	( )
e) Any other specify	( )
7.Dietary pattern	( )
a) Pure vegetarian	( )
b) Vegetarian (consumes egg)	( )
c) Non vegetarian	

8.Obstetrical score.	
a) Gravida	( )
d) Para	( )
c) Living	( )
d) Abortion	( )
e) Still birth	
9.Previous admission to hospital.	
a) 0 months - 6 months back	
b) 7 months – 1 year back	( )
c) 2 years – 5 years back	( )
d) 5years – 8 years back	( )
	( )
10.Reason for choosing this hospital.	
a)Modern facilities available.	
b) Quality care by the staff nurses	( )
c) Referred from camp/other hospital	( )
clinics	( )
d) Convenient	( )
e) Availability of good doctors	( )
f) Any other reasons specify	( )

Tool - II

BASED ON YOUR EXPERIENCE AS A PATIENT IN THIS HOSPITAL, PLEASE   (✓) TICK MARK WHETHER YOU ARE FULLY SATISFIED (FS), MODERATELY SATISFIED (MS), MINIMALLY SATISFIED(MnS),SATISFIED(S) NOT SATISFIED (NS).

I. ORIENTATION

S.L.NO	ITEM	FS	MS	MnS	S	NS
1	I was given a warm welcome and made me comfortable on admission.					
2	I was oriented to the health team members and postnatal unit.					
3	I was oriented to toilet , bathroom, washing area and availability of safe drinking water.					
4	I was oriented about visiting hours for family and doctors.					

II. <u>INFORMATION</u>

–

S.L.NO	ITEM	FS	MS	MnS	S	NS
5	I was informed about ward routines					
6	I was informed regarding rules & regulations of the hospital.					
7	Nurses used to convey message, which I hesitated to ask my doctor.					
8	I was informed about informed consent before any procedure					

III. <u>COMMUNICATION:</u>

S.L.NO	ITEM	FS	MS	MnS	S	NS
9	All my questions were answered promptly with positive attitude.					
10	Nurses maintained a good IPR with myself and my family members.					
11	Nurses communicated in my own language and were free to talk.					
12	Nurses answered all doubts asked by me concerning my treatment results and prognosis					

V. COMFORT AND CARE

S.L.NO	ITEM	FS	MS	MnS	S	NS
13	I got help when needed					
14	Nurses were calm and approachable.					
15	Nurses assisted me in keeping myself clean & groomed					
16	I felt safe and secured throughout the day and night during my hospital stay.					
17	There was no noise at night in the ward					

VI.   SPECIFIC TO POSTNATAL CARE.

S.L.NO	ITEM	FS	MS	MnS	S	NS
18	I was assisted to go to toilet and got information regarding personal hygiene during postnatal period.					
19	I was assisted in perineal toilet and informed regarding how to keep my perineum hygienic .					
20	I was assisted in early ambulation.					
21	The nurses checked my vital signs regularly.					
22	I was taught about involution of uterus					
23	I was explained how to take care of my breast and minor breast problem in postnatal period & its management.					
24	I was informed regarding nutrition, sleep and rest in postnatal period.					
25	My medication / treatment was administered at proper time					
26	I was told regarding lochial flow and was told how to detect excessive bleeding during puerperal period .					
27	I was advised about postnatal exercise.					
28	I was assisted with episiotomy care and told how to detect signs and symptoms if infection and how to detect it.					
29	I was informed about the methods & importance of family planning and postnatal follow up visits.					
30	I was assisted with giving bath and diaper care cord and eye care and detect signs and symptoms of infection in my baby.					
31	I was taught about the importance of colostrum and exclusive breast feeding					
32	I was assisted to position my baby during and after feeding and was taught to burp my baby after breast feeding.					
33	Nurses taught me to detect sign and symptoms of neonatal conditions.					
34	I was taught about rooming in ,bonding and attachment					
35	I was educated about immunization and weaning of my baby.					

VII. VALUE & PREFERENCE FOR POSTNATAL MOTHERS

S.L.NO	ITEM	FS	MS	MnS	S	NS
36	Staff nurse treated me with dignity and respect.					
37	Staff nurses talked to me to find my values and preference for care.					
38	In future if there is a need for my treatment I would prefer this hospital.					
39	I'll recommend this hospital to my friends and relatives.					

Results in tables

Table 1 describes the distribution of structured number of questions and its percentage   in each area of care .

NO.	CONTENT	QUESTION NUMBER	PERCENTAGE
1.	Orientation	4	10.25%
2.	Information	4	10.25%
3.	Communication	4	10.25%
4.	Comfort & care	5	12.82%
5.	Specific to postnatal care	18	46.15%
6.	Value & preference	4	10.25%
Total number of Questions		39	100%

Table 2: Frequency and percentage distribution on selected sample characteristics of postnatal mother based on Demographic data

N=100

Demographic Variables	Sample Characteristics	Postnatal mothers	
		F	%
Age in Years	18-22	29	29
	22-26	30	30
	26-30	28	28
	30 and above	13	13
Religion	Hindu	28	28
	Muslim	52	52
	Christian	20	20
Type of Family	Nuclear	72	72
	Joint	28	28
Educational	No formal schooling	7	7

Demographic Variables	Sample Characteristics	Postnatal mothers	
Qualification	Primary school	35	35
	High school	39	39
	Collegiate Education	19	19
Monthly Income	Below 2000	1	1
	2001 to 4000	14	14
	4001 to 6000	58	58
	6001 and above	15	15
Dietary pattern	Pure vegetarian	8	8
	Vegetarian- consumes egg Non vegetarian	38	38
		54	54
Occupation	Coolie	10	10
	Agriculture	36	36
	Business	39	39
	Employee	15	15
Obstetrical Score	Gravida		
	G1	29	29
	G2	54	54
	G3	17	17
	Para		
	P0	35	35
	P1	84	84
	P2	17	17
	Living		
	Lo	35	35
	L1	48	48
	L2	17	17
	Abortion		
	A0	94	94
	A1	6	6
	Still birth		
	Nil	100	100

Demographic Variables	Sample Characteristics	Postnatal mothers	
Previous admission to hospital.	a) 0 months - 6 months back	43	43
	b) 7 months – 1 year back	29	29
	c) 2 years – 5 years back	27	27
	d) 5years – 8 years back	1	1

Table 3 Frequency and percentage distribution on selected sample characteristics of postnatal mother based of their reason for choosing this hospital.

10. **reason for choosing this hospital.**	esy		no		total	
	f	**%**	f	**%**	f	**%**
Modern facilities available.	84	84	52	52	100	100
Quality care by the staff nurses	33	33	67	67	100	100
Referred from camp/other hospital clinics	84	84	52	52	100	100
Convenient	95	95	5	5	100	100
Availability of good doctors	94	94	6	6	100	100
Any other reasons specify	9	9	91	91	100	100

Table 4 JPSNQ tools reliability statistics   for total and each area

JPSNQ subscales	No of items	Cronchbach alpha
orientation	4	0.720
information	4	0.747
communication	4	0.782
care and comfort	5	0.827
Specific to postnatal care	18	0.747
preference and value	4	0.847
total	39	0.834

Table 5 Area wise assessment

ubscaleS	N	minimum	maximum	mean	Standard deviation
orientation	100	4	17	9.78	2.048
information	100	7	16	10.08	1.824
communication	100	4	16	9.15	1.882
care and comfort	100	5	22	11.97	3.413
Specific to postnatal care	100	39	68	48.79	5.353
preference and value	100	6	16	12.45	2.231

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