

Learning Needs of Antenatal Mothers in a Selected Tertiary Care Hospital, South India

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Abstract

Antenatal period is a time when the women are receptive to teaching and learning related to self care. *Objectives:* The purpose of the study is to assess the learning needs of the antenatal mothers, and are assessed in terms of knowledge, self-care practice and perceived learning needs of the mothers. *Methods:* Cross-sectional exploratory survey was done among 150 antenatal mothers (50 mothers from each trimester) attending department of a selected tertiary care hospital. The data were collected using knowledge questionnaire, practice checklist and a questionnaire to assess the perceived learning needs. Both descriptive and inferential statistical methods were used to analyse the data. *Results:* The findings of the study revealed that 4.7% of mothers had good, 54% had average and 41.3% had poor level of knowledge. The mean score of antenatal care was 16.2 ± 3.97 (54%). The mean score was lowest in the area of diet (51.27%). The mothers of third trimester had significantly higher knowledge than other two trimesters. The self care practice was good among 136(90.67%) antenatal mothers and was average among 14 (9.33%) antenatal mothers. The mean self care practice score of antenatal mothers were 12.37 ± 3.09 (82.47%). Scores were less in the area of exercise (62.3%). Majority of mothers perceived learning needs on diet and exercise (90%) followed by other areas. *Conclusion:* The result of the study showed that knowledge of antenatal mothers are inadequate. Though majority of mothers scored good in the self care practice, it was inadequate in the area of exercise and diet. This suggests that an education program should be conducted among antenatal mothers on antenatal care based on their learning needs to increase the knowledge and practice on antenatal care. This helps to promote a healthy pregnancy and fetal outcome.

Keywords: Self Care Practice; Learning Needs; Knowledge, Antenatal Mothers.

Introduction

Pregnancy is a normal physiological process. Most of the pregnancies progress normally and follows an uneventful course. Unless and until complicated by any medical or obstetrical condition it does not require much care by health care professionals.

Antenatal care involves systematic assessment and monitoring of the pregnant women and appropriate antenatal advices. As the women spend pregnancy at home they need to have adequate knowledge regarding their self-care.

Antenatal education is one of the important role of a nurse in antenatal care and it extends from

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teaching on antenatal care to preparation for parenthood. All expectant mothers should be helped to prepare for birth and parenthood. Information technology and social networking are changing how new mothers learn and prepare for what will be the most significant change in their life. Expectant parents want information about the many topics related to pregnancy, childbirth and early parenting and they want support from other people like themselves and health professionals. The evidence suggests that, if done well, antenatal education and preparation for parenthood can bring increased satisfaction with the experience of giving birth improved maternal health behaviours, such as reduction in smoking and alcohol consumption during pregnancy and increased rate of breastfeeding.

A cross-sectional study was conducted in multiple primary health care centres in Riyadh city, Saudi Arabia to assess the antenatal knowledge, describe the learning needs and preferred information seeking behaviour of expecting and/or new mothers. The study was conducted in a random sample of 468 eligible new and expecting mothers. The result shows that the mean antenatal knowledge score was low (34.8/100). Educational material in written format was preferred by 39.8% of the sample, followed by a preference for one to one education (18.8%). Preferred educational strategies were motivation and support, guidance, problem solving, and do's and don'ts. Selected content ranged from identifying pregnancy symptoms, to post-partum care [1]. Another descriptive study on the awareness regarding antenatal investigations among 180 antenatal mothers found that the awareness was poor in 61% and the mean score was 34.46% [2]. Most of the studies conducted on the knowledge of antenatal mothers reveal inadequate knowledge and need for antenatal education [3,4].

Educational interventions developed for any group would be more effective when it is based on their specific learning needs. The present was a part of an initiative to develop an educational package on antenatal care specific to the learning needs of antenatal mothers in a selected tertiary care hospital in South India. The objectives of the study were to assess the knowledge on antenatal care, determine the self care practices and identify the perceived learning needs among antenatal mothers.

Methods

A cross sectional approach with explorative

survey design was used for the study. The sample consists of 150 antenatal mothers attending the outpatient department of a selected tertiary care hospital in Kerala, South India. Quota sampling technique was used to select 150 antenatal mothers (50 each from first, second and third trimester). Ethical clearance was obtained from the thesis review board of the institution. Participation was based on willingness and informed consent was obtained prior to data collection. Background information was collected using semi-structured interview. A semi-structured questionnaire was used to assess the knowledge on antenatal care and a checklist was used to identify the self-care practice. In order to assess the perceived learning needs an open ended questionnaire as well as a checklist were used. Data was analysed using appropriate descriptive and inferential statistical methods.

Results

Results of the study are presented as three sections; background data, knowledge, practice, perceived learning needs.

Section 1. Background Data

Section 2. Knowledge on Antenatal Care

The knowledge regarding antenatal care was average among 81 (54%) antenatal mothers and poor among 62 (41.3%) antenatal mothers. Only seven (4.7%) antenatal mothers had good level of knowledge (Figure 1).

The mother's knowledge and interest in self-care may be reflected in their knowledge of their own health status. Distribution of antenatal mothers based on awareness regarding own health presented in table 2 shows that majority of the antenatal mothers were aware of their own blood group, body weight and blood pressure. But only 38.7% were aware of their haemoglobin level.

The mean knowledge score of antenatal care 16.2 ± 3.97 (54%). The mean score was less than 60% in all the specific areas except minor ailments (Table 3). The mean score was lowest in the area of diet (51.27%).

Comparison of knowledge score between different trimesters shows that mothers in the third trimester have significant higher score than other trimesters (table 4).

Section 3: Self-care Practice

The self care practice was good among 136 (90.67%) antenatal mothers and was average among 14 (9.33%) antenatal mothers (Figure 2).

The mean self care practice score of antenatal mothers were 12.37±3.09 (82.47%). Exercise (62%) and diet (74.67%) were the areas where the mothers scored less (Table 5). No significant difference was found in the self-care practice score between different trimesters (Table 6).

Section 4: Learning Needs

Exercise and diet were areas of learning needs

expressed by more than 90% of the mothers (Figure 3). More than 70% expressed need for learning in labour, fetal wellbeing and newborn care.

Section 4: Correlation between Knowledge and Practice

There was no significant correlation between knowledge and practice (Figure 4) and the Pearson's correlation coefficient calculated was 0.019.

Section 5: Association of knowledge and self care practices with selected demographic variables.

No significant association was found between knowledge and practice with selected demographic variables.

Table 1: Distribution of the antenatal mothers based on demographic characteristics n= 150

Demographic variables	Frequency	Percentage
1 Age		
a. 18-25 years	67	44.7
b. b-33 years	65	13.3
c. 34-41 years	18	12
2. Education		
a. Secondary/higher secondary	52	34.7
b. Graduate/post graduate	98	65.3
3. Employed		
a. Yes	127	84.7
b. No	23	15.3
4. Order of Pregnancy		
a. Primi	84	56
b. Multi	66	44

Fig. 1: Distribution of antenatal mothers based on Knowledge on antenatal care

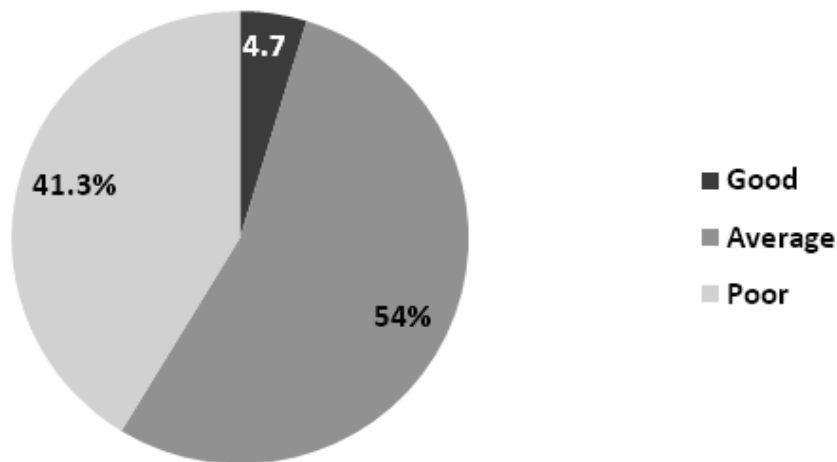


Table 2: Distribution of antenatal mothers based on awareness regarding own health

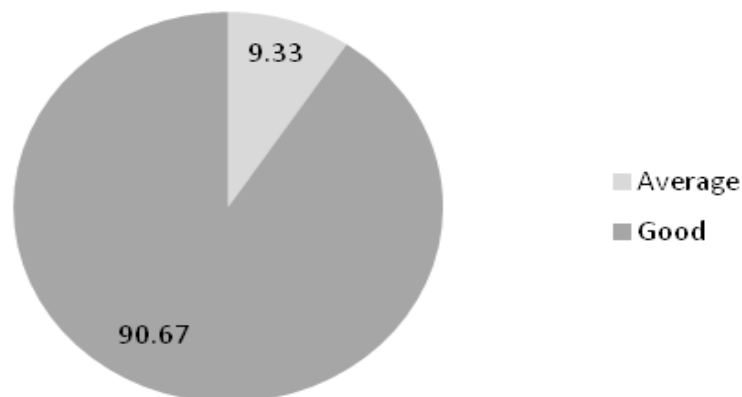
Variables	Frequency	Percentage
a. Blood Group	148	98.7
b. Height	93	62
c. Weight in First visit	122	81.3
d. Present body weight	144	96
e. Haemoglobin Level	58	38.7
f. Blood Pressure	136	90.7

Table 3: Range, mean and standard deviation of knowledge score of antenatal mothers n=150

Specific areas of Knowledge	Maximum score	Range	Mean and SD	Mean score (%)
General	4	2 (1 -3)	2.12± 0.79	53
Exercise	5	4(1 -5)	2.66± 1.13	53.2
Fetal wellbeing	5	4(1 -5)	2.89± 1.05	57.8
Diet	11	9(1 -10)	5.64± 2.04	51.27
Minor ailments	5	4(1 -5)	3± 1	60
Total	30	21(7 -28)	16.2± 3.97	54

Table 4: Comparison of knowledge on antenatal care among antenatal mothers in first, second and third trimester calculated using One way ANOVA n=150

Trimester	Range	Mean and SD	Mean score (%)	F value	P value
First trimester	21(7 -26)	15.63 ± 4.13	52.1	9.356	< 0.001
Second trimester	17(7 -24)	14.98 ± 3.68	49.93		
Third trimester	16(12 -28)	18.08 ± 3.46	60.27		

**Fig. 2:** Distribution of antenatal mothers based on Self care practice**Table 5:** Range, mean, standard deviation of self care practice score of antenatal mothers n=150

Specific areas of practice	Maximum score	Range	Mean and Standard deviation	Mean score (%)
Hygiene	2	1(1-2)	1.82 ± 0.39	91
Medication	2	1(1-2)	1.73 ± 0.48	86.5
Clothing	3	1(1-2)	2.86 ± 0.35	95.3
Exercise and Physical activity	3	1(1-3)	1.87 ± 0.75	62.3
Diet	3	2(1-3)	2.24 ± 0.77	74.67
Antenatal check up	2	1(1-2)	1.85 ± 0.35	92.5
Total	15	8(7-15)	12.37 ± 3.09	82.47

Table 6: Comparison of self care practice score care among antenatal mothers between first, second and third trimester calculated using One way ANOVA

Trimester	Mean and SD	Mean score (%)	F value	P value
First trimester	12.25 ±1.57	24.5	2.59	.078
Second trimester	12.22 ±1.48	24.44		
Third trimester	12.82 ±1.32	25.64		

Fig. 3: Distribution of antenatal mothers according to the learning needs

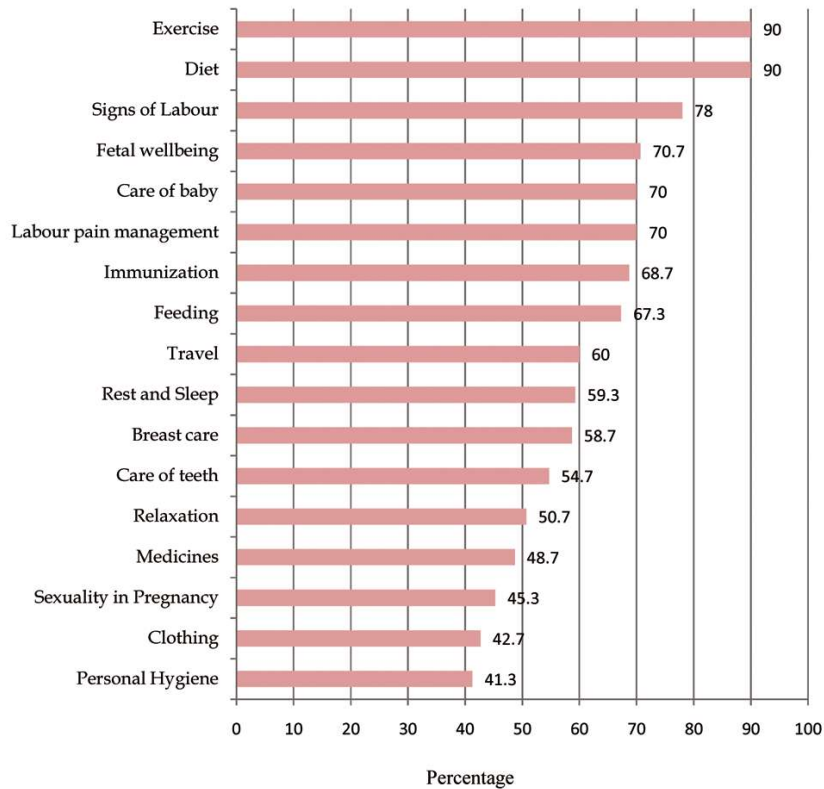
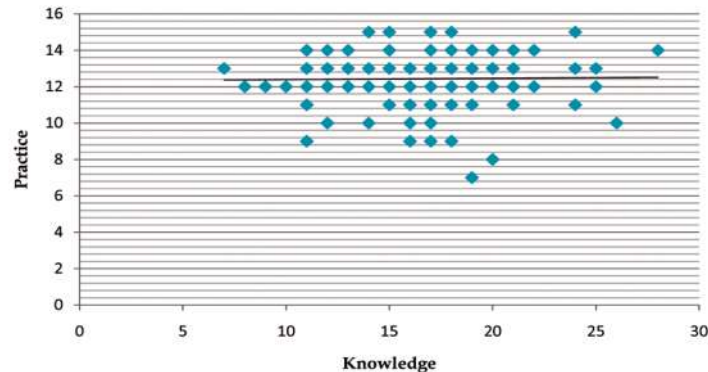


Fig. 4: Scatter diagram between knowledge and practice.



Discussion

Result of the study shows that knowledge regarding antenatal care is inadequate in majority of the antenatal mothers. The mean knowledge score is less than 54% and it is less than 60% in all the specific

areas. The knowledge score was least in exercise followed by diet. Mothers in the third trimester have a significantly higher knowledge score than mothers in other trimesters. Self-care practice was good in 90.67% of antenatal mothers and the mean practice score was 82.47%. Exercise and diet were the areas where the mothers scored least in self-care practice

and score was high in areas like antenatal check up, clothing, medication and hygiene. Exercise, diet, labour, fetal wellbeing and newborn care were areas of learning needs expressed by more than 90% of the mothers.

Research studies conducted on the knowledge regarding antenatal care also finds it inadequate in majority of the women[1,2,5]. The practice of antenatal care varied among different populations of antenatal mothers[6,7]. Educational interventions are found to be effective in improving the knowledge and practice of antenatal care [8,9]. Above findings reveals that need for learning among antenatal mothers. The knowledge and practice related diet and exercise was less compared to other areas. The mothers expressed perceived learning needs also in this area. So these areas need be given more emphasis.

As per the result of the study there is no significant correlation between knowledge and practice. So improving the knowledge alone may not lead to improved outcome. The educational interventions should have motivational components also to improve the practice. The aim of the present study was to develop an educational package based of the specific learning needs of the antenatal mothers. The findings of the study suggest the areas to be emphasized in antenatal education.

The present study was conducted in a tertiary care hospital in Kerala, South India. The study provides data to meet the specific learning needs of the above setting. As setting of the study is limited it cannot be generalized to other settings.

Conflict of Interest

None

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