

A Study to Assess the Knowledge of Husbands of Primigravida Women Regarding Antenatal Care in a Tertiary Care Hospital of Eastern India

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ABSTRACT

Background: Women's ability to seek health care or implement lessons learned from health education, are many a times determined by the husband.

Aims: To assess the knowledge of husbands of primigravida women regarding antenatal care in a tertiary care hospital of Eastern India.

Materials and Methods: A descriptive study was conducted to assess the knowledge of husbands of primigravida women regarding antenatal care in the antenatal outpatient department of a tertiary care hospital of eastern India. Conceptual framework of the study was based on Rosenstoch's Health Belief Model. 100 respondents were selected by non-probability convenience sampling technique. The data were collected by a structured interview schedule. Descriptive and inferential statistics were used for data analysis.

Results: Study findings revealed that most of the respondents (55%) had fair knowledge. Maximum knowledge score (82%) existed in the area of investigation during pregnancy and maximum knowledge deficit (42%) in consequence of family planning. There was significant association between knowledge on antenatal care with education of the respondents [$\chi^2=6.92042$ at $df(1)$ at 0.01 level] which suggested that knowledge score was dependent on educational status of the respondents.

Conclusions: Knowledge of the husbands regarding antenatal care was inadequate as determined by the structured interview schedule. Knowledge on antenatal care was dependant on educational status of the respondents.

Keywords: Antenatal care, Husband's Knowledge, pregnancy outcome.

INTRODUCTION

Education and health care services provided during the antenatal period can reduce complications during pregnancy and delivery and can improve foetomaternal outcome. Antenatal period is a critical phase in the life of women, which starts from conception up to the period before delivery. Periodic health assessments are needed to

prevent complications. This also helps to detect the problems during pregnancy early and offer proper treatment to the patients. 17% of all direct and indirect deaths of antenatal mothers have been found to be due to improper antenatal care. ^[1-3]

According to the World Health Statistics report (2012), in 20 years the number of maternal deaths has decreased

from more than 540,000 deaths in 1990 to less than 290,000 in 2010 globally each year. There is a decline of 47% maternal deaths. Nearly one third of these maternal deaths occur in just two countries: India and Nigeria. Every day, nearly 800 women die from preventable causes related to pregnancy and childbirth. [1-3]

Women's ability to seek health care or implement lessons learned from health education, are often determined by the household head, usually the husband. The role of male partners in women's reproductive health is being increasingly recognized recently. [3-8]

Men play key roles in supporting women's and children's health, preventing unwanted pregnancies, slowing the transmission of sexually transmitted infections, making pregnancy and delivery safer, reducing gender-based violence and also have distinctive reproductive health needs of their own. Men's supportive role is an essential component for making women's world better. There are growing debates among policymakers and researchers on the role of males in maternal health programmes. [3-8]

Men's knowledge regarding pregnancy-related care and a positive attitude towards gender enhances maternal health care utilization and women's decision-making about their health care. Presence of husbands during antenatal care visits markedly increases the chances of women's delivery in institutions. From the policy perspective, proper dissemination of knowledge about maternal health care among husbands and making the husband's presence obligatory during antenatal care visits may help primary health care units to secure a better male involvement in maternal health care. [3-9]

A recent study in Indonesia found that men who were exposed to a multimedia entertainment-education regarding birth preparedness responded favourably by exhibiting new knowledge gains regarding birth preparations. [10]

Recent research shows that not only do women want their male partners to be more actively involved, but men themselves also are more interested than previously believed. Men are becoming more aware of their critical role in reproductive health. In addition, health care providers in the public sector have limited skills to implement male friendly services particularly in the area of maternity care and family planning. [11-12]

Assessment of knowledge on different aspects of antenatal care is an important aspect of maternal and child health services. This assessment will help to identify the deficit area of knowledge of husbands of primigravida women and this in turn will help the health planners and policy makers, administrators to make policy, to develop modified teaching strategy to meet the need. [9-12]

The concept of husband's involvement in antenatal care is new and study in this field in eastern India is lacking. The present study was conducted with an aim to assess the existing knowledge of husbands of primigravida women regarding antenatal care, which may help to plan an effective educational programme for antenatal care in future.

METHODOLOGY

This descriptive survey was conducted in a Medical College of Eastern India in a time span of one year after taking institutional ethical clearance and informed consent of the subjects. The study was conducted on hundred husbands of primigravida attending antenatal clinic of the hospital. Non probability convenience sampling technique was adopted to select the subjects of the study.

Demographic variables Studied were:

- Educational background of the husband.
- Occupation of the husband.
- Income of the husband.
- Duration of marital life.
- Source of information.

Data collection tools and techniques: Structured interview schedule was used for data collection.

Development of tool

A structured interview schedule was developed by reviewing of research and non-research literature on different areas of antenatal care. Formal and informal discussion with teachers, experts, peer group and investigator's own working experience helped to develop the structured interview schedule. Expert's opinion was sought for ascertaining the clarity and appropriateness of the items. The major steps followed to develop the structured interview schedule were following:

- Planning for preparation of the structured interview schedule.
- Development of first draft of structured interview schedule on knowledge about antenatal care.
- Establishment of content validity.
- Pre-testing of structured interview schedule.
- Reliability of tool.
- Development of final draft of structured interview schedule.

Description of Structured Interview Schedule

The structured interview schedule had two parts.

Part-I It consisted of total 5 items on demographic data. These items composed of the information about education, occupation and income of the respondents, duration of marital life and source of information.

Part-II It dealt with knowledge items which require responses related to antenatal care. It consisted of 30 items related to different aspects of knowledge on antenatal care. All were multiple choice question items and each item had one possible correct response. Each correct response was carried score of '1' mark and incorrect response '0' mark. Thus for total 30 items, maximum possible scores were 30. These items were constructed to measure the knowledge on the following areas:

- Antenatal check-up, total 4 items.
- Investigations, total 1 item.
- Nutrition, total 7 items.

- Immunization, total 1 item.
- Rest and sleep, total 3 items.
- Sexual relation, total 1 item.
- Signs and symptoms of high-risk pregnancy, total 3 items.
- Preparation for delivery, total 4 items.
- Family planning, total 1 item.
- Neonatal care, total 4 items.
- Follow-up after delivery, total 1 item.

Scoring Key for structured interview schedule

Maximum possible score-30

Score in Number	Score in Percentage
>24-Excellent	>80%-Excellent
22 - 24 –Very good	71-80%-Very good
19-21-Good	61-70% -Good
15-18-Fair	50-60%-Fair
<15-Poor	<50-Poor

Average time taken for each respondent in completion of the interview was 30-40 minutes.

RESULTS

31% respondents had primary level of education, 27% of them had secondary level of education, 24% respondents were H.S. passed and 18% were graduate. 38% respondents were daily labour, 33% were businessman and 29% were engaged in service. 45% of the respondents belonged to the income group of Rs.3001-Rs.5000/-, 28% to the income group of Rs.5001-Rs.8000/-, 14% belonged to the income group of >Rs.8000/- and 13% to the income group of <Rs.3000/-. 56% of the respondents were married for <2years, 33% were married for 2-3 years and 11% were married for 4-5 years. 17% of the respondents received information from more than one sources. Most of the respondents (64%) received information from relatives, 36% from health personnel, 10% from newspaper and 7% from television/radio. 55% respondents had fair knowledge, 36% had good knowledge, 5% had excellent knowledge and 4% had very good knowledge on antenatal care. Highest percentage (82%) score was in the area of investigation. It represented that maximum

knowledge existed in this area followed by preparation for delivery (75.5%), immunization (71%), rest and sleep (70.33%), signs and symptoms of high risk pregnancy (64.67%), antenatal check-up (63.5%), neonatal care (54.5%), nutrition of antenatal women (54%), sexual relation (51%), follow-up after delivery (49%) and family planning (42%).

Respondents who had primary education, maximum of them (74.19%) had fair knowledge, 22.58% of them had good knowledge and 3.23% of them had very good knowledge. Respondents who had secondary education, most of them (51.85%) had good knowledge and 48.15% of them had fair knowledge. Respondents who had above secondary level of education, maximum of them (58.33%) had fair knowledge, 33.33% of them had good knowledge and each 4.17% of them had very good and excellent knowledge. Respondents who were graduate, most of them (38.89%) had good knowledge, 27.78% of them had fair knowledge, 22.22% of them had excellent knowledge and 11.11% of them had very good knowledge. The data showed that knowledge score increased according to the level of education of the respondents.

Among the respondents who were engaged in service, 44.83% of them had fair knowledge, 37.93% had good knowledge, 10.34% had excellent knowledge and 6.9% had very good knowledge. Respondents who were engaged in business, maximum (54.55%) of them had fair knowledge, 42.42% had good knowledge and 3.03% had excellent knowledge. Among the respondents who were daily labourers, most of them (63.16%) had fair knowledge, 28.95% had good knowledge, 5.26% had very good knowledge and 2.63% had excellent knowledge.

Respondents who were married for <2 years, most of them (58.92%) had fair knowledge, 37.5% had good knowledge and each 1.79% of them had very good and excellent knowledge. Respondents who were married for 2-3 years, maximum of

them (45.45%) had fair knowledge, 33.33% had good knowledge, 12.12% had excellent knowledge and 9.1% had very good knowledge. Respondents who were married for 4-5 years, majority of them (63.64%) had fair knowledge and 36.36% had good knowledge.

Respondents who received information from one source, most of them (55.42%) had fair knowledge, 33.73% had good knowledge, 4.82% had very good knowledge and 6.03% had excellent knowledge. Data further pointed out that the respondents who received information from more than one source, maximum (52.94%) of them had fair knowledge and 47.06% had good knowledge.

Table 1 Chi square test of association between knowledge score and educational level of the respondents n=100

Education	Knowledge score		Total	Chi-square χ^2
	< Median	≥Median		
Below secondary	12	19	31	6.92042**
Secondary and above	24	45	69	
Total	36	64	100	

$$\chi^2 (1) = 6.64, p < 0.01$$

Data presented in Table 1 indicated that 12 respondents with below secondary level of education scored below median and 19 respondents of the same category scored at and above median of the total knowledge score. Similarly, 24 respondents with secondary and more than secondary education scored below median whereas 45 respondents of the same category scored at and above median of the total knowledge score. Chi square value was computed between knowledge score and education of the respondents at df (1) at 0.01 level of significance and it was found to be statistically significant. So, it can be concluded that knowledge score of the respondents of the present study regarding antenatal care was dependent on their educational level.

Chi square value was computed between knowledge score and occupation of the respondents at df (1) at 0.05 level of significance and it was not found to be statistically significant.

There was no signification association between knowledge score of the

respondents on the source of information or duration of marriage.

DISCUSSION

The present study was conducted in a tertiary care centre of west Bengal to assess knowledge of husbands regarding pregnancy and reproductive health of primigravida patients attending antenatal clinic of the hospital. Thirty-one percent (31%) respondents had primary level of education; Thirty-eight percent (38%) respondents were daily labourer; Forty-five percent (45%) respondents were belonged to the income group of Rs.3001-Rs.5000/-; Majority of the respondents (56%) were married for <2 years. Maximum knowledge score (82%) existed in the areas of investigation followed by preparation for delivery (75.5%), immunization (71%), rest and sleep (70.33%), signs and symptoms of high risk pregnancy (64.67%), antenatal check-up (63.5%), neonatal care (54.5%), nutrition (54%) of primigravida women, sexual relation (51%), follow-up after delivery (49%) and family planning (42%).

India contributes to 19% of the global maternal deaths. Good quality antenatal care can prevent maternal deaths by early detection of complications and maintaining maternal health. There are few studies documenting quality of antenatal care in India. A prospective cohort study was done by Pricilla RA et al on 200 pregnant women who had antenatal care by nurse midwives between April 2014 and November 2014. [13] This study aimed to document the antenatal services provided by nurse midwives to low-risk pregnant mothers from an urban population. The quality of care was assessed by a checklist adapted from World Health Organization (WHO). They reported that the quality of antenatal care for all domains was above 90% except for the health education domain, which was poor with regard to breastfeeding and family planning in the enrolled 200 pregnant women. The findings of the present study indicated that there was significant association between knowledge

score of the respondents and their educational level.

Marital quality is well established as a determinant of health in Western countries, but the importance of relationship quality to health in non-Western countries is mainly limited with a focus on domestic violence. Using the Women's Reproductive Histories Survey, Allendorf K in 2010, [14] examined the concept that whether women with higher quality family relationships are more likely to use maternal health care. Results showed that among nuclear families, women with better marital relationships are more likely to use antenatal care and deliver in a health facility. In joint families, women who have better relationships with their in-laws are more likely to use antenatal care.

Tuladhar H et al in 2011 [15] in Nepal conducted a study to identify the determinants of antenatal care (ANC) attendance and its impact on maternal / perinatal outcome. 322 women delivered during a period of four months. Majority (87%) reported of attending more than 4 antenatal visits. Women with secondary education and above, business/service holders, 20-29-year age group, primigravida and Brahmin / Chhetri caste were more likely to have 4 visits. Financial problem (52.4%) followed by ignorance (28.6%) were the most commonly stated reasons for not attending ANC. In the present study also level of education was found to be an important factor for availing antenatal care.

A study by Lewis S et al in 2015⁵ examined the role of husbands in maternity care and safe childbirth. This qualitative was conducted in four rural hill villages in the Gorkha district of Nepal. In rural Nepal, male involvement in maternal health and safe childbirth is complex and related to gradual and evolving changes in attitudes taking place. This study showed that, expectant fathers do have an important role in maternal health and safe childbirth. The finding of this study is similar to our study where expected fathers played a crucial role in antenatal care of their wives.

To assess the knowledge of primigravida regarding antenatal care in rural and urban areas a study was conducted in 2014 by Yasodha V et al. [16] Majority of (82%) primigravida mothers had inadequate knowledge in rural area. In urban area 54% had moderately adequate knowledge of antenatal care. There was significant association between the level of knowledge and mean knowledge on antenatal care among primigravida mothers in rural and urban population. So from the above discussions it is evident that education plays a key role in antenatal care.

A study was conducted by Joseph N et al in 2017 [17] to assess and compare the knowledge and attitude regarding antenatal care among pregnant women consulting selected urban and rural hospitals of Uttar Kannada District, Karnataka. Data were collected by using structured questionnaire. The questionnaire was designed to assess and compare the knowledge and rating scale to assess attitude regarding antenatal care. The findings revealed that pregnant women consulting in rural hospital had more knowledge and better attitude regarding antenatal care than those consulting in urban hospital.

CONCLUSIONS

In the present study it was observed that the knowledge of the husbands regarding antenatal care was inadequate as determined by the structured interview schedule. Husbands had inadequate exposure to reproductive health and little or no involvement in antenatal care. Knowledge regarding antenatal care was dependant on the educational status of the husband.

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