

Original Papers

Knowledge of husbands on some aspects of antenatal care in the Kahawatta Medical Officer of Health area in the Ratnapura district

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Abstract

Introduction

Men's participation is a promising strategy for addressing some of the world's most pressing reproductive health problems. Many providers and programme designers have concluded that neglecting men and their reproductive health is a losing strategy with adverse consequences for both men and women. From this new perspective, men are considered as potential partners and advocates of good reproductive health rather than bystanders, barriers or adversaries.

Objective

To describe the knowledge of husbands on selected aspects of antenatal care in the Kahawatta MOH area in the Ratnapura district

Methodology

A cross sectional descriptive study was conducted using an interviewer-administered questionnaire. Three hundred and ninety eight husbands from a family unit with an infant aged less than six weeks participated.

Results

The study found that the majority of husbands had the knowledge on identifying a pregnancy, what they should do when it is known that the wife is pregnant, the impact of tobacco and other smoke on pregnancy, the effects of excessive physical activities on pregnancy, the need for extra food during pregnancy, the preventive aspects of anaemia, and the effects of maternal mental ill health on foetal brain development and the ability to enhance it during intrauterine life. However the majority did not have a knowledge on rubella immunization, time to commence antenatal care, risk conditions and danger signals during pregnancy, basic investigations during the pregnancy, the need to get tetanus toxoid immunization, the expected weight gain during pregnancy and the impact of anaemia on a pregnant mother.

Conclusion

Although the majority of the study population knew about most components of antenatal care, the knowledge related to some aspects of quality of care was poor.

Key words

male participation; antenatal care; knowledge

Introduction

Sri Lanka, as an Asian country has a male dominant society where most often the decision maker of the family is the husband. Men take decisions on health related concerns such as food purchase and distribution of food within the family, family size, family planning practices and the use of health care services (1). Hence the knowledge, beliefs, attitudes, and practices of husbands towards health have a direct impact on the wellbeing of the family as well as maternal health. Although the traditional Sri Lankan society has changed from a predominately male dominated one to where more females get involved in family related matters, still culturally males are considered dominant.

The physical and mental wellbeing of the pregnant mother has a direct impact on the survival, growth and development of the unborn child (2) and may also contribute to maternal mortality and morbidity. Therefore, the care of the pregnant mother is very important and husbands should be aware of the need for providing better attention and care during this period. An attentive, sensitive and caring husband will help the pregnant/post partum mother to overcome the stresses during pregnancy and the puerperium thereby improving the wellbeing of the mother and the child (3).

Although attention of the husband of a pregnant/post partum mother is essential to improve the quality of care given during this period, most of our reproductive and maternal health programmes are projected towards females only. Hence male participation in reproductive and maternal health programmes is limited. Very often the husband is not an active participant in maternal care in Sri Lanka. Even though some husbands wish to participate actively in maternal care, they may not be encouraged by the cultural and social norms that prevail in Sri Lanka.

The first step that men can take to promote the health of women is to plan their families. Men should participate in selecting the method that suit them best. When his wife gets pregnant, a man should make sure that she gets proper antenatal care. He can also accompany her on the antenatal visits, where he can learn about pregnancy and related subjects and symptoms of pregnancy complications.

Good nutrition and plenty of rest are also important during pregnancy. Men can help women to have safe pregnancies and healthy babies by ensuring that they receive nutritious food, which

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are rich in iron and proteins (4).

Giving her emotional support through better communication, reassurance, concern, being sensitive and responsive to her needs, giving her an opportunity to engage in religious activities and being with her as much as possible will help to improve her mental well being.

Delays in seeking and receiving care can cause serious complications and maternal deaths. Men can avoid delays by learning the symptoms of pregnancy complications, symptoms of imminent delivery and of delivery complications (5).

In many societies, as social, economic and educational opportunities for women increase, traditional gender roles are starting to change. As a result, power is being redistributed between men and women, and reproductive decisions are being made jointly by couples, and not by men alone.

The extended family system is now changing towards a nuclear family system. This has given more responsibility to male partners regarding care of their pregnant and post partum wives. Therefore, adequate knowledge, positive attitudes and good practices of male partners have a direct impact on maternal health and pregnancy outcome.

Methodology

A descriptive cross sectional study was carried out in the Medical Officer of Health area of the Kahawatte in the Rathnapura district. All family units with an infant from birth to 6 weeks old and residing in the area permanently were considered as the study population. The estate population and single mothers (unmarried or separated) were excluded. Data collection was done from the 15 July 2004 to the 15 September 2004.

The sample size was calculated taking into consideration the location of the study done at De Soyza maternity hospital where it was reported that 50% of the fathers knew when to start a family planning method after delivery (6). Therefore, the probable estimate of proportion was considered as 0.5. The total sample size was 384 and 10% was added to compensate for non-respondents.

Data was collected from the families which had an infant aged less than six weeks at the time of commencement of the survey. Then the data collection continued on the families with new born until the sample size achieved.

The study instrument used to collect the data on the total sample was a pre-tested interviewer

administered questionnaire with both close ended and open ended questions. Data were processed and analyzed using the SPSS – 10 statistical software. The chi squared test was used where necessary to assess the relationship between variables.

Results

The sample size achieved during the study period was 398. It was 90.5% of the calculated sample size. Socio demographic Characteristics of the study population is given in Table 1. Table 2 presents selected information regarding the families.

According to the results 38.2% of the study population did not know about rubella immunization. The percentage of the study population who knew about pre-pregnant rubella immunization increased with increasing educational level and the observed difference was statistically significant. Seventy seven percent of the study population knew that menstruation would stop as a result of pregnancy while 58.5% knew that testing of a urine sample was a means of confirmation of a pregnancy. Seventy five percent of husbands knew that they should meet the PHM when the wife gets pregnant while 27.9% said that they should consult a doctor. Only 44.4% knew that antenatal care must be commenced as soon as the pregnancy is known. Fifty percent said that it should be after completion of three months. The proportion of the study population who knew that blood group and Rh, had to be tested during pregnancy was 83.9%; 28%, 23.1% and 20.9% knew about blood sugar testing, haemoglobin level testing and the VDRL test respectively. According to the result 60.3% of the husbands did not know about the use of tetanus toxoid immunization during pregnancy. There was a step-wise increase in the knowledge on tetanus toxoid immunization from lower to higher educational levels and this difference was statistically significant ($\chi^2 9.444$, df 3, $p < 0.05$). However 44.8% of those who had passed GCE advanced level or had higher educational qualifications did not know about the tetanus immunization.

When considering the knowledge on danger signals during pregnancy, 60.8% identified bleeding through vagina during pregnancy as a danger signal while 49.5% identified sudden onset of severe abdominal pain, reduced foetal movements (42%), dribbling (38.2%), high fever (25.4%), faintishness after 12 weeks (25.1%), fits (19.6%), and severe headache (13.6%) as danger signals. The percentage of the study population who knew that high blood pressure during pregnancy as a risk condition was 48.2%. History

Table 1 – Socio-demographic features of the study population

Socio-demographic feature	Husband		Wife	
	Frequency	Percentage	Frequency	Percentage
Age				
15 – 19yrs	2	0.5	21	5.3
20 – 24 yrs	51	12.8	99	24.9
25 – 29 yrs	72	18.1	135	33.9
30 – 34yrs	122	30.7	81	20.4
35 – 39 yrs	84	21.1	59	14.8
40 – 44 yrs	59	14.8	03	0.8
>45 yrs	08	2.0	00	0.0
Education level				
No schooling	03	0.8	05	1.3
Grade 1 – 5	30	7.5	22	5.5
Grade 6 – 10	176	44.2	136	34.2
Passed O/L	122	30.7	144	36.2
Passed A/L	58	14.6	86	21.6
Diploma/Degree	09	2.3	05	1.3
Occupation				
Executive/Technical/Professional	07	1.8	02	0.5
Teaching/Nursing/Clerk	30	7.5	29	7.3
Armed forces	17	4.3	00	0.0
Businessmen	65	16.3	04	1.0
Skilled labourers	99	24.9	07	1.8
Unskilled labourers	61	15.3	08	2.0
Agriculture related	112	28.1	09	2.3
No occupation	07	1.8	339	85.1
Total	398	100.0	398	100.0

Table 2 – Distribution of the study population by family type and number of children

Description	Frequency	Percent
Family Type		
Nuclear Family	261	65.5
Extended Family	137	34.5
Number of children born		
1	205	51.5
2	140	35.2
3	35	8.8
4 or more	18	4.5
Total	398	100.0

of abortions (17.8%), diabetes (15.6%), heart diseases (11.0%), past caesarean section (10.3%), and anaemia (9.5%) were identified as risk conditions. However 45.7% did not know a single risk condition.

The majority (90.5%) knew that tobacco smoke had an adverse impact on pregnancy, but a large proportion (66.1%) had thought that the effect was a congenital abnormality. Only 24.7% knew that it

causes low birth weight. Sixty five percent of the study population knew that the gases/smoke other than tobacco can have an adverse influence on pregnancy. The majority (52.5%) identified that the emissions from the vehicles has adverse impact on pregnancy while only 28.2% knew that emissions smoke from firewood used for cooking has an adverse effect.

Excessive physical activities during pregnancy were identified as a factor that may harm the pregnancy. The majority knew that heavy work such as chopping firewood (64.3%), carrying heavy objects (62.8%), carrying water in large vessels (35.4%), and long distance traveling (23.6%) were not suitable for pregnant women.

When considering the knowledge on nutrition during pregnancy, 87.7% of the husbands knew that pregnant women need more food than non-pregnant woman, and 88.6% knew that the weight increased during pregnancy. However, only 27.6% knew that the expected weight gain during pregnancy is 10 – 12 kg. The majority of the study population knew that weakness (72.4%) and low birth weight (52.5%) can occur as a result of anaemia. Eighty three percent thought that consumption of more vegetables and green leaves can prevent anaemia, while regular consumption

of animal proteins (58.5%), taking iron and vitamin supplementation according to the instruction (55.3%) and taking worm treatment (22.4%) also identified as preventive measures of anaemia during pregnancy.

Most (95.7%) husbands knew that the mental ill health of the mother has an adverse impact on the growing foetus. The majority (85.9%) of the study population knew that brain development of the foetus takes place during the intrauterine period while 14.1% did not know about it. Out of the husbands who knew that brain is developing during the intrauterine period, 90.9% knew that the brain development during the intrauterine period could be enhanced by maintaining adequate nutrition during pregnancy (73.3%), by maintaining a good mental health status during pregnancy (64.6%), by engaging in religious activities during pregnancy (26.7%), by talking to the foetus frequently (21.9%) and by listening to soft and calm music (19.6%).

Discussion

The Reproductive Health concept and the importance of the holistic approach were introduced after ICPD 1994. Reproductive health programmes in the world pay less attention towards male participation in reproductive health. Men's participation is a promising strategy for addressing some of the world's most pressing reproductive health problems.

This was a descriptive cross sectional study. The study area consisted of mainly suburban and rural areas. The overall education level appeared to be higher in wives. The unemployment rate was also higher than the national figure among the females in the study population. The extended family system is now changing towards the nuclear family system. This has placed more household burden and psychological stress on females without any support for household work. In the study population sixty five percent of the families were nuclear in nature and this conforms to the DHS 2000 findings. However, families with one child was quite large (51.5%) compared to the DHS 2000 where only 24.2% was reported as single child families.

Rubella infection during first trimester of pregnancy causes severe congenital abnormalities in the foetus. To prevent the congenital rubella syndrome, pre-pregnant immunization with rubella vaccine was introduced to the immunization programme of Sri Lanka. Even though the vaccination programme was implemented more than ten years ago, the knowledge of husbands in the study population regarding rubella immunization appears to be

unsatisfactory.

Traditionally the cessation of menstruation is considered as the symptom of pregnancy. With the development of technology, several laboratory tests are used to confirm the pregnancy. More than fifty percent of the husbands knew that a pregnancy could be confirmed by testing a sample of urine. This may indicate that even people living in the rural areas are aware about newer technologies. The findings cannot be generalized to other areas which is a major limitation in the study. Every pregnant mother should receive basic antenatal care addressing physical and psychological needs as soon as pregnancy is confirmed. In assessing the knowledge of husbands on what they should do when it is known that the wife is pregnant, majority of husbands indicated that they should register with the area public health midwife, complimenting the well organized maternal and child care programme in Sri Lanka that reaches the grass roots level. However, half of the husbands thought that the commencement of clinic antenatal care should be after completion of three months of pregnancy, contrary to the MCH policy in Sri Lanka. The possible reasons are, the fact that possibility of spontaneous abortion during first three months and the absence of visual evidence of a pregnancy.

Pregnancy is a physiological phenomenon, but it creates potential risks to the woman's life. According to the study findings 65.5% of the families were nuclear. The husband is the only person who is at home in the case of an emergency. Having knowledge on risk conditions and identification of danger signals is very important to take appropriate and immediate decisions. Most maternal deaths occur due to one or more of three delays (delay in deciding to seek medical care, delay in reaching a medical facility with adequate care and delay in receiving emergency obstetric care). Therefore, the husband's knowledge on risk conditions and danger signals is a critical issue in preventing maternal mortality and morbidity. When considering the knowledge on risk conditions during pregnancy nearly half of the husbands did not know even a single risk condition. The most known risk condition was hypertension during pregnancy followed by abortion. The findings indicate the poor focus and inadequate participation of males in maternal health care programmes. This is unsatisfactory because of the possibility of the delay that may occur in seeking care.

There are several basic investigations to carry out during pregnancy. However most of the antenatal

clinics do not provide facilities for basic investigations. Only hospital antenatal clinics where laboratory facilities are available provide this service. Throughout the country 22.5% of antenatal clinics provide facilities for VDRL testing and 53.1% of pregnant mothers were tested for VDRL while 65.4 % of pregnant mothers were tested for blood grouping and Rh (7). In this study 83.9% of husbands knew about Blood grouping and Rh, while only 20.9% knew about VDRL testing. The higher knowledge on blood grouping and Rh in the study population may be due to establishment of blood banks at Balangoda and Embilipitya base hospitals facilitating testing of blood group and Rh of pregnant mothers.

Immunization of pregnant mothers with tetanus toxoid to reduce morbidity and mortality among newborns due to tetanus neonatorum, commenced in 1969. By 1978 the national expanded programme on immunization commenced and the tetanus toxoid immunization programme was well organized. According to the Annual Health Bulletin 2001, 88.7% of the mothers in the country were protected with tetanus toxoid. Although the immunization programme was being implemented since 1969, 60.3% of the husbands did not know about tetanus toxoid immunization during pregnancy.

Maternal tobacco smoking is rare in Sri Lanka. However mothers are exposed to passive cigarette smoking. The use of firewood as a fuel for cooking also may contribute to indoor air pollution especially in poorly ventilated houses and kitchens. As most of the mothers (85.1%) were unemployed in this study population, they spend long hours in the kitchen preparing meals. During this time they may be exposed to the smoke from fire wood. Several studies have shown a positive relationship between low birth weight and indoor air pollution (8) and between passive tobacco smoking and low birth weight (9). The majority (90.5%) of the study population knew that tobacco smoke has an adverse effect on pregnancy, while only 27% knew that it causes low birth weight. The incorrect knowledge may be due to the inadequate attention about the birth weight compared to the abnormalities of the child. However, only 28.2% thought that smoke from burning firewood causes low birth weight. Although such conditions can be easily rectified, lack of knowledge regarding such matters may cause harm.

Physical activities during pregnancy do not necessarily cause adverse pregnancy outcomes. However, heavy work such as carrying heavy objects, exhaustive physical work and prolonged

standing at work have been associated with preterm delivery and low birth weight (8, 10). In Sri Lankan rural communities the main source of water is wells and the main fuel for cooking is firewood. Usually Women engage in collecting water and firewood. The majority (83%) of the study population knew that the extensive physical activity had harmful effects on pregnancy.

Nutrition of the pregnant mother determines the health and the economical productivity of the future generation. During pregnancy women need a balanced diet with adequate amounts in correct proportions. A pregnant mother needs more food than a non-pregnant woman. "Pregnancy" is considered as a special event and nutrition of the pregnant woman is a priority. When a woman is pregnant the immediate family members, relatives and neighbors provide nutritious food for the pregnant mother which is part of our culture. In the antenatal clinic care system of Sri Lanka, the weight gain of the mother during pregnancy is monitored. The knowledge on the adequacy of weight gain will facilitate self evaluation. The majority (88.6%) of the husbands knew that the weight would increase during pregnancy and a pregnant woman need more food. However, only 27.6% knew that the required amount of weight gain should be 10 – 12 kilograms (11). Nutritional anaemia in women increases the risk of maternal mortality, reduces the gestational period, increases the risk of low birth weight and increases the perinatal mortality (12). In assessing the knowledge among the study group regarding the impact of anaemia it was revealed that the 72.4% had thought that it causes weakness while 52.5% thought it causes low birth weight. Only eight husbands knew that it may contribute to maternal death.

The maternal health care programme in many ways focuses on preventing anaemia during pregnancy. The programme provides iron and vitamin tablets, worm treatment and supplementary food to all pregnant mothers attending antenatal clinics conducted by government institutions. The clinic system also gives health education using IEC materials on the subject. However, only half of the study population knew that the supplementation of iron and vitamin, supplementary food and worm treatment as a preventive measure of anaemia during pregnancy.

Almost all the study population knew that mental ill health of the mother had an adverse impact on the growing fetus. This knowledge may be influenced by cultural beliefs and social practices in the area. A majority of the husbands knew that the brain of fetus is developing during

intrauterine life and most of them knew that brain development could be enhanced. They also had a fair knowledge on how to enhance brain development. This may be due to the extensive discussions on early childhood care and development by health workers in the area and mass media.

Conclusions and recommendations

Overall knowledge of the study population on maternal health care was satisfactory, but it was poor in some aspects which are important in quality care such as the rubella immunization, when to start antenatal care, the risk conditions and the danger signals during pregnancy, the basic investigations during pregnancy, tetanus toxoid immunization, and impact of anaemia. Recommendations to improve the knowledge of husbands on maternal care are as follows:

- Male participation in maternal care programme should be encouraged by conducting special sessions for couples regarding pregnancy, delivery, post partum care, family planning and parenting.
- Male health care workers such as public health inspectors should be used to provide information for males on reproductive health.
- IEC material should be developed targeting the male population giving information regarding maternal health and nutrition.
- Health education programmes and IEC material for males should be made available in work places.
- The channels which could be used to disseminate the information on reproductive health to males should be identified.

Acknowledgements

We sincerely thank WHO and the Family Health Bureau of the Ministry of Health for providing funds; and to the Deputy Provincial Director Ratnapura and the Medical Officer of Health Kahawatta and his staff for their cooperation towards success of this study.

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