EXISTING KNOWLEDGE LEVEL OF RURAL WOMEN REGARDING PRE AND POST- NATAL CARE

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ABSTRACT

Maternal mortality is a major health problem in developing countries. India is among those countries, which has a very high maternal mortality ratio. Rajasthan, India's largest state in terms of land area has a maternal mortality ratio (MMR) of 445 per 100,000 live births, which is substantially higher than the national figure of 301. Present study was conducted in three panchayat samities of Bikaner district, from each panchayat samiti one village was selected on the basis of maximum number of home deliveries and minimum literacy rate. Findings of present study revealed that the existing knowledge of the respondents were lacking in four components of pre and post-natal care i.e. Diet of pregnant woman, medical check-up and vaccination of pregnant woman, Care of new born and immunization and knowledge of colostrum and breast feeding. It may be concluded that the main reasons behind low knowledge level were low literacy level, high poverty, lack of awareness, lack of communication facilities, traditionalism, rigidity of beliefs and customs in rural areas.

INTRODUCTION

Maternal health care is essential for pregnant lady. Maternal health can be defined as the health of women during pregnancy, childbirth and the post-partum period (WHO, 2012c) of all the maternal deaths in the world, 99% occur in developing countries. Maternal health care consists out of post-natal care during the pregnancy, skilled assistance during labor and post-natal care after birth. So it is imperative to assess the knowledge of rural women regarding pre and post natal care. Thus, the present study was conducted with following specific objective:

1. To study the existing knowledge of rural women regarding pre and post-natal care.

RESEARCH METHODOLOGY

Present study was conducted in Rajasthan State. Rajasthan State has seven zones out of them Bikaner zone was selected on the basis of maximum number of home deliveries and minimum literacy rate. There are five punchayat samities in Bikaner district, out of these, three punchayat samities were selected for the study namely Bikaner, Nokha and Kolayat, from each panchayat samiti one village was selected purposively namely Jamsar, Jasarasar and Akasar. Total 240 respondents were selected for the study with the help of PPS method. An already developed and modified knowledge test regarding Pre and post-natal care was administered to the respondents.

RESULTS AND DISCUSSION

To check the knowledge of the respondents a knowledge test was administered to the respondents individually and their responses were recorded. Total score of the knowledge test was 260. Knowledge was categorized into three categories, i.e. High, medium and low on the basis of mean and standard deviation. The maximum score of the different components were as in order: 26, 37, 21, 11, 22, 39, 6, 52, 23 and 23.

Range is an absolute measure which indicates the difference between minimum and maximum scores obtained by the respondents in a particular component; whereas, coefficient of range is a relative measure which is used to compare the variability between two components.

Standard deviation is an absolute measure which indicates the total variation among the scores

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obtained by the respondents from the respective means; whereas, coefficient of variation is the relative measure which indicates the total variation of the scores obtained by the respondents from their respective means. This measure is used to compare the variability between two components.

Table 1: Score range of knowledge and standard deviation

S.No.	Different components	Range of knowledge	Coefficient of range	Average Score	Standard deviation	Coefficient of variation (%)
1.	Symptoms of pregnancy, physiological changes and problems during pregnancy	10 – 26 (16)	0.44	17.45	3.47	19.88
2.	Medical check-up and vaccination of pregnant woman	07 – 35 (28)	0.66	16.90	5.92	34.99
3	Diet of pregnant woman	02 – 18 (16)	0.80	10.44	3.05	29.29
4	Symptoms of risky pregnancy	05 – 09 (4)	0.28	7.44	1.21	16.31
5	Signs and symptoms of abortion	02 – 18 (16)	0.80	12.93	3.72	27.52
6	Circumstances, preparation and equipments needed during delivery	19 – 38 (19)	0.33	32.47	4.08	12.56
7	Complications during pregnancy	02 – 06 (4)	0.50	5.03	0.95	18.89
8	Care of newborn and Immunization	11 – 44 (33)	0.60	20.45	5.74	28.08
9	Knowledge about colostrum and breast feeding	06 – 23 (17)	0.58	13.26	3.97	29.95
10	Family Planning	07 – 23 (16)	0.53	15.55	3.42	21.99

Data presented in the Table-1 reveals that the highest score obtained by the respondents in component I i.e. (Symptoms of pregnancy, physiological changes and problems during pregnancy) was 26 and the lowest was 10 with a range of 16 and coefficient of range 0.44. Standard deviation of component I was 3.47 and coefficient of variation was 19.88 percent.

Further Table-1 depicts that maximum score obtained by the respondents in component II i.e. (Medical check-up and vaccination of pregnant women) was 35 and the lowest was 7 with a range of 28 and coefficient of range 0.66. Standard deviation of component II was 5.92 and coefficient of variation was 34.99 percent.

Table-1 shows that the highest score obtained by the respondents in component III i.e. (Diet of Pregnant Woman) was 18 and the lowest was 2 with a range of 16 and coefficient of range 0.80. Standard deviation of component III was 3.05 and coefficient of variation was 29.29percent.

Again the highest score obtained by the re-

Table 2: Distribution of respondents by different component-wise knowledge and mean per cent score of each category (n = 240)

	Different Components	Distribution of respondents			Mean Percent Score			Overall Mean Percent Score	Rank
		Low (%)	Medium (%)	High (%)	Low (%)	Medium (%)	High (%)		
I	Symptoms of pregnancy, physiological changes and problems during pregnancy	40 (16.67)	154 (64.17)	46 (19.17)	47.88	66.23	86.71	67.09	V
II	Medical check-up and vaccination of pregnant woman	11 (4.58)	167 (69.58)	62 (25.84)	23.10	38.05	70.27	45.68	IX
III	Diet of pregnant woman	50 (20.83)	151 (62.92)	39 (16.25)	31.52	49.57	73.63	49.72	VIII
IV	Symptoms of risky pregnancy	41 (17.08)	175 (72.92)	24 (10.00)	45.45	70.86	81.82	67.61	III
V	Signs and symptoms of abortion	47 (19.58)	155 (64.58)	38 (15.84)	32.40	65.28	81.82	61.46	VI
VI	Circumstances, preparation and equipments needed during delivery	42 (17.50)	176 (73.33)	22 (9.17)	64.77	86.07	95.92	83.25	II
VII	Complications during pregnancy	51 (21.25)	107 (44.58)	82 (34.17)	58.82	83.33	100.00	83.81	I
VIII	Care of newborn and Immunization	12 (5.00)	187 (77.92)	41 (17.08)	25.32	35.72	59.94	39.33	X
IX	Knowledge about colostrum and breast feeding	29 (12.08)	174 (72.50)	37 (15.42)	34.18	54.70	89.89	57.64	VII
X	Family Planning	35 (14.58)	156 (65.00)	49 (20.42)	43.35	66.89	87.22	67.60	IV

spondents in component IV i.e. (Symptoms of risky pregnancy) was 9 and the lowest was 5 with a range of 4 and coefficient of range 0.28. Standard deviation of component IV was 1.21 and coefficient of variation was 16.31 percent.

It is evident from the Table-1 that highest score obtained by the respondents in component V i.e. (Signs and symptoms of abortion) was 18 and the lowest was 2 with a range of 16 and coefficient of range 0.80. Standard deviation of component V was 3.72 and coefficient of variation was 27.52 percent.

Further the data indicates that the highest score obtained by the respondents in component VI i.e. (Circumstances, preparation and equipment needed during delivery) was 38 and the lowest was 19 with a range of 19 and coefficient of range 0.33. Standard deviation of component VI was 4.08 and coefficient of variation was 12.56 percent.

It is clear from data that the highest score obtained by the respondents in component VII i.e. (Complications during pregnancy) was 6 and the lowest was 2 with a range of 4 and coefficient of range 0.50. Standard deviation of component VII was 0.95 and coefficient of variation was 18.89 percent.

Table-1 indicates that the highest score obtained by the respondents in component VIII i.e. (Care of newborn and immunization) was 44 and the lowest was 11 with a range of 33 and coefficient of range 0.60. Standard deviation of component VIII was 5.74 and coefficient of variation was 28.08 per-cent.

The data indicates that in relation to the highest score obtained by the respondents in component IX i.e. (Knowledge about colostrum and breast feeding) was 23 and the lowest was 06 with a range of 17 and coefficient of range 0.58. Standard deviation of component IX was 3.97 and coefficient of variation was 29.95 percent.

Table-1 clarifies that the highest score obtained by the respondents in component X i.e. (Family planning) was 23 and the lowest was 07 with a range of 16 and coefficient of range 0.53. Standard deviation of component X was 3.42 and coefficient of variation was 21.99 percent.

Out of these 10 components the coefficient of range of component IV was the lowest it indicates that there is lowest difference between the lowest and the highest scores obtained in that particular component as compare to others. Similarly coefficient of variation in component VI was the lowest which indicates the respondents have more homo-geneity and less variability among the scores obtained.

Out of ten components, four components were selected for Animated Clippings i.e. 'Diet of pregnant woman', 'Medical check-up and vaccination of pregnant woman', 'Care of newborn and Immunization' and 'Knowledge about colostrum and breast feeding' on the basis of minimum overall mean percent score.

Fig. 1: Distribution of respondents by different component-wise knowledge and mean per cent score of each category

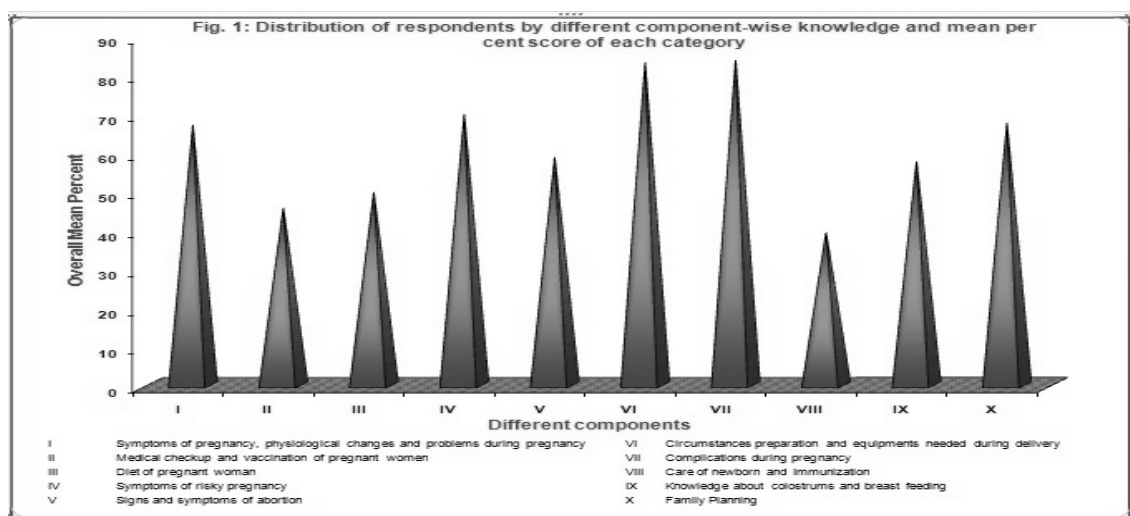|			
I	Symptoms of pregnancy, physiological changes and problems during pregnancy	VI	Circumstances preparation and equipments needed during delivery
II	Medical checkup and vaccination of pregnant women	VII	Complications during pregnancy
III	Diet of pregnant woman	VIII	Care of newborn and immunization
IV	Symptoms of risky pregnancy	IX	Knowledge about colostrums and breast feeding
V	Signs and symptoms of abortion	X	Family Planning

Table-2 reveals that the knowledge for component of 'Complication during pregnancy' ranked first with overall mean percent score of 83.81. The majority of the respondents (44.58%) were in category of medium knowledge followed by 34.17 percent respondents were in category of high knowledge. Only 21.25 percent respondents were in category of low knowledge It happened due to the reason that the respondents have themselves faced this situation; moreover, elderly women and other elderly members of the family are able to easily explain such complications to the pregnant women.

The knowledge for the component 'Circumstances preparation and equipment need during delivery' ranked second with overall mean percent score of 83.25. Because majority of the respondents (73.33%) were in category of medium knowledge while 17.5 percent respondents were in category of low knowledge and only 9.17 percent respondents were in category of high knowledge. Because the respondents have themselves faced the situation at their home which is headed by an elderly woman/ Dai.

The knowledge for the component 'Symptoms of risky pregnancy' ranked third with overall mean percent score 67.61. Majority of the respondents (72.92%) were in category of medium knowledge while 17.08 percent respondents were in category of low knowledge and only 10 percent respondents were in category of high knowledge with mean percent score 81.82. As the respondents have themselves been through the nine months period of pregnancy therefore, they have a great hand over this component.

The knowledge for the component 'Family planning' ranked fourth with overall mean percent score 67.61. Majority of the respondents (65%) were in category of medium knowledge while 20.42 percent respondents were in category of high knowledge and only 14.58 percent respondents were in category of low knowledge with mean percent score 43.35. Because of family planning programme which started around 1975, the people of rural areas have become aware of the fact that small families are more efficient in sufficient use of available resources. Several programmes featured on family planning and related issues on T.V. and radio also have provided much of information on the topics to these people.

The knowledge for the component 'Symptoms of pregnancy, physiological changes and problems during pregnancy' ranked fifth with overall mean percent score 67.09. Majority of the respondents (64.17%) were in category of medium knowledge while 19.17 percent respondents were in category of high knowledge and 16.67 percent respondents were in category of low knowledge. Reason for good knowledge was self experience of rural women.

Further Table-2 indicates the knowledge for the component 'Signs and symptoms of abortion' ranked sixth with overall mean percent score of 61.46. Majority of the respondents (64.58%) were in category of medium knowledge while 19.58 percent respondents were in category of low knowledge and only 15.84 percent respondents were in category of high knowledge with mean percent score 81.82.

The knowledge for the component 'Knowledge about colostrum and breast feeding' ranked seventh with overall mean percent score 57.64. Majority of the respondents (72.50%) were in category of medium knowledge while 15.42 percent respondents were in category of high knowledge and only 12.08 percent respondents were in category of low knowledge There are several reasons for low knowledge i.e. rural woman breastfeed their children but don't know the advantages of breast feeding for baby and mother both. They have lack of knowledge about the interval between two feeds. They think that the baby is crying due to hunger and they overfeed the child which is risky for the infant.

The present findings regarding component 'Knowledge about colostrums and breast feeding' supported by Chandrashekhar *et.al.* (2012) who also reported the poor knowledge regarding breast feeding practices among post-natal women. Health education session was effective in improving the knowledge about breast feeding practices among the post-natal women.

'Diet of pregnant woman' component ranked eighth with overall mean percent score of 49.72. Majority of the respondents (62.92%) were in category of medium knowledge while, 20.83 percent respondents were in category of low knowledge and 16.25 percent respondents were in category of high

knowledge. Reason being they do not have adequate knowledge of nutrition, which should be taken during pregnancy. Poverty is the main reason for this. Rural people follow traditional diet pattern also, which is another cause for this result.

'Medical check-up and vaccination of pregnant woman' component ranked ninth with overall mean percent score of 45.68. Majority of the respondents (69.58%) were in category of medium knowledge while 25.84 percent respondents were in category of high knowledge and only 4.58 percent respondents were in category of low knowledge This is due to the reason that rural women think it is part of life and they do not take special care of themselves during this period. They live in joint family system and believe in traditional ways of check-up during pregnancy, until and unless they have any serious problem. They have lack of knowledge about vaccination of pregnant woman.

'Care of newborn and Immunization' component ranked tenth with overall mean percent score of 39.33. Majority of the respondents (77.92%) were in category of medium knowledge while 17.08 percent respondents were in category of high knowledge and only, 5 percent respondents were in category of low knowledge. Reason for the lack of knowledge of respondents regarding 'Care of Newborn and immunization' is due to their fear of immunization. Sometimes due tosome reason baby dies and people consider immunization as the reason behind death. Secondly they do not understand the normal process of occurrence of fever after vaccination and consider it as the after effect of it. Thirdly, in these rural areas baby boy is preferred over a baby girl. No PHCs and CHCs are established in such localities. An elderly woman or a Dai heads the process of delivery and conducts it and nurtures the baby in a fixed traditional manner.

The findings are similarity with findings of Thakur and Kumar (2012) regarding 'Care of new-born and Immunization' that most of the mothers were unaware about the importance of immediate care of new born. Many unsafe behavior do exist, such as, common use of untrained attendant, unsafe cord care, immediate bathing of baby.

CONCLUSION

From the above findings it can be concluded that the existing knowledge of the respondents were lacking in four components of pre and post-natal care i.e. Diet of pregnant woman, medical check-up and vaccination of pregnant woman, Care of new born and immunization and knowledge of colostrum and breast feeding. It may be concluded from above points that the main reasons behind low knowledge level were low literacy level, high poverty, lack of awareness, lack of communication facilities, traditionalism, rigidity of beliefs and customs in rural areas.

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