Maternal Health Care Awareness Among College Girls of other Backward Class of Central India

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Abstract: Death due to complication related to pregnancy and childbirth are the leading cause of mortality of women in the reproductive ages in developing countries. Health status of Madhya Pradesh in India shows IMR/1000 live births is 90 and < 5 mortality / 1000 is 137.6. [1] India is among "Slow progressing nation" in child and maternal care. Madhya Pradesh is one of the states where maternal mortality rates are as high as 700 or more [2]. Antenatal and postnatal care awareness among youth can certainly reduce the mortality and morbidity rate, as they are future mothers.

Objective: The study has been undertaken to find the knowledge and awareness among 250 college girls of other backward class, Jabalpur city, Madhya Pradesh regarding antenatal and postnatal health care.

Study Area: India is the seventh biggest country of the world. It has 2.4 percent land area and 16.7 percent population of the whole world. Madhya Pradesh is one of the major state of India located in the central part of India therefore it is named so. It has 6, 03, 85,118 total population out of which 2, 89, 28,245 are female. Jabalpur city is the heart of India, and a Division of Madhya Pradesh The population of Jabalpur is 2,167,469.

Sample: 250 randomly selected other backward class category college girls of Jabalpur city, Madhya Pradesh, India are the sample for the present study. Other backward class (OBC^S) is one of socially disadvantaged groups.

Method: For recording information regarding knowledge & perception towards maternal health care, a detailed structured but simple questionnaire was distributed among 250 randomly selected unmarried college girls of other backward class of Jabalpur city, Madhya Pradesh, India. Sample colleges were selected by stratified random sampling method. The study was conducted in various colleges in Jabalpur.

Results: It is found that all 100 percent girls are aware that pregnant women need special care. 60.8 percent girls consider pregnancy as a general physiological process, 74.8 percent accepted that during pregnancy normal daily routine work should be done. 89.6 percent girls have a view for monthly consultation to Doctor during pregnancy. 66.4 percent knew tetanus toxoide injection is necessary in pregnancy. 70.4 percent girls have knowledge that folic acid tablets are given to prevent anemia. 96 percent girls accepted that in pregnancy extra nutrient should be given. 56.6 percent girls mentioned all the nutrients should be given in extra amount during pregnancy period. 15.8 percent girls consider protein 12.0 percent girls iron, 12.0 percent girls calcium and 3.3 percent girls consider Vitamin A should be given in extra amount. 24 percent girls knew that weight of normal neonate is 3 kg. All the girls accepted that mother's milk should be first feed of new born babies. Only 51.2 percent girls have knowledge regarding colostrums. 28.8 percent girls are aware that 6 months is correct age for infant to introduce semisolid food. 17.6 percent girls knew 4 months is correct age for supplementary food. 91.2 percent girls correctly mentioned salt-sugar solution could be given for treatment of diarrhea at home. 97.6 percent students are having knowledge of oral rehydration solution.

Conclusion: It has been noticed that girls are quite aware of antenatal and postnatal care. It is suggested regarding important aspects, which are lacking like, colostrum or nutritional requirement of a mother, students should be informed by interpersonal communication. Parents should also pass their knowledge acquired by them through the experience of life realizing that maternal health is a major instrument of social and economic development and plays an important role in the creation of a new world through safe motherhood.

Keywords: Awareness, Antenatal, Colostrum, Postnatal, Pregnancy.

INTRODUCTION

In India, the adolescent population constitutes more than one fifth (23 percent) of the total population [3]. Among the SAARC countries also, adolescents comprise a sizeable proportion (one-fifth) of the total population and the total population in the region, as a whole it will increase by 18 percent by 2020 [4]. Adolescents and youth undergoing rapid growth and development age one of the nutritionally vulnerable

groups, who have not received the attention they deserve. Early marriage and pregnancy perpetuates both maternal and child ill health and under nutrition. Study of maternal health and nutritional aspect has already occupied a very prominent position in the field of Medical Science all over the world. Most authorities agree that the nutritional status of the mother before conception is important.

Nutritional Status of the mother is the result of her lifetime dietary habits, had a greater influence on the outcome of pregnancy than her diet during pregnancy [5]). It may even be that the nutritional status of her own mother will influence the outcome of her

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pregnancy [6]. Greater evidence of complications, owing largely to a higher percentage of toxemia among women with poor diets [7]. NFHS 92 – 93 shows that in India 19 percent of maternal deaths are due to Anemia, 22 percent due to bleeding during pregnancy and 13 percent due to toxemia [8]. Maternal diseases and educational status are two risk factors which have strong association with anemia during pregnancy [9]. Anemia is one of the primary contributors to maternal mortality (20-25 percent) and is significantly associated with a compromised pubertal growth spurt and cognitive development among girls aged 10-19 years [10]. The NFHS-2 found that 56 percent of adolescent girls in the age group 15-19 are anemic in India [3]. In the review study of Kanani [11] it is revealed that prevalence of anemia is 65-75 percent in under privileged adolescents.

Death due to complication related to pregnancy and childbirth are the leading cause of mortality of women in the reproductive ages in developing countries. Health status of Madhya Pradesh Shows IMR/1000 live births is 90 and < 5 mortality / 1000 is 137.6 [1]. Madhya Pradesh is one of the states where maternal mortality rates are as high as 700 or more [2]). The report points out that these deaths can be reduced through wider use of key intervention and a "Continuum of care" approach for mother and child beginning, before pregnancy. Socio economic status of adolescent girls has impact on awareness regarding childcare practices [12]. Therefore, It is necessary to educate the youth and make them aware regarding role of health and nutrition before conception during pregnancy and later in lactation period for mother and child keeping them healthy. Pregnancy-related deaths are the leading cause of mortality for 15-19 years old girls (married and unmarried) worldwide. The risk of maternal death is about three times higher in late adolescent (15-19) girls; and those less than 15 years old are 5 times as likely to die as women in their twenties. They also have a higher propensity to experience adverse outcomes such as higher fetal wastage (miscarriage and / or still births) prior spontaneous abortions and higher stillbirth rates have been reported in different studies [13, 14].

Adolescent's childbearing in India is at a fairly high level. The age specific fertility rate is 121 per 1000 for 15-19 age group for all India. (NFHS II, IIPS 2000) Some studies have shown that maternal deaths are concentrated in the youngest ages and children born to younger mothers are more likely to be preterm or low birth weight [15-17]. Comparison of NFHS-1 and 2 data

reflects a decline in neonatal, infant and under five mortality cases from the year 1991 to 1998. However these rates continue to be higher in mothers less than 20 years compared to 20-29 years age group [18]. The maternal characteristics also affect the under-5 mortality rate, which is significantly higher for those children born to mothers under 20 years [18].

Keeping in view the adolescent profile in India the awareness study on maternal care is most significant to reduce mortality and morbidity of adolescent mother as well as children. Critical review states that study on awareness among college girls specially among girls of other backward class have been most scant, probably no such study have been carried out in Jabalpur. Therefore, the objective of the study is to determine the awareness regarding antenatal and postnatal care of health and nutrition among other backward class college girls of Jabalpur city.

MATERIALS AND METHODS

Study was conducted in various colleges of Jabalpur. Data have been tabulated and analysed by simple percentage method. To collect relevant data from different colleges firstly all the colleges of Jabalpur city have been arranged in descending order on the basis of total number of students. Colleges having total number of girls students more than 50.0 percent were selected. Thus (15) colleges of Jabalpur city were selected as sample college by stratified sampling method. 250 unmarried college girls selected by purposive sampling from selected colleges but the sample size of each college under study is different on the basis of their categories in order to make the sample a representative one. For recording information regarding knowledge & perception towards maternal health care, a detailed structured but simple questionnaire was distributed among of other backward class of Jabalpur city, Madhya Pradesh, India. The questionnaire consisting questions related to antenatal and postnatal care, (including, immunization, first feed, regular medical checkup, supplementary food etc.) were included. Data have been tabulated and analysed by simple percentage method.

Study Area

Madhya pradesh is one of the major states of India located in the central part of India therefore it is named so. It has 6,03,85,118 total population out of which 2,89,28,245 are female. Jabalpur city is heart of India, and a Division of Madhya pradesh The population of Jabalpur is 2,16,7,469.

Table 1: Attitude Towards Pregnancy

Total girls	Need of special care to pregnant		Consider pregnancy as				Pregnant can do daily routine work		
	Yes	No	Normal process	Special condition	Illness	No response	Yes	No	No response
OBC (250)	250	0	152	50	18	30	187	42	21
%	100.0	0	60.8	20.0	7.2	12.0	74.8	16.8	8.4

OBC: Other Backward Class.

About Sample

College girls of other backward class of Jabalpur city, Madhya Pradesh, are the sample for the present study. Other backward class (OBC^s) is one of socially disadvantaged groups, as they still continue to lag behind the rest of the society due to their social and economic backwardness. In the specific census data, it is not possible to quote the exact figure of their population. However estimate of OBC constituting 52 percent of the country's total population. (Ninth five year plan 1997-2002) It is apparent that the majority of OBC lives below the poverty line, posses no asset and are engaged in low income traditional occupation like handloom weaving, pottery, fishing black smithy etc. Therefore Indian Government has launched various schemes for their educational and economical upliftment. In Madhya Pradesh major caste in other backward class includes Soni, Yadav, Sahu, Vishwakarma, Namdeo, Kurmi, Patel, Koshta, Kachi, Chourasia etc.

Socio Demographic Profile of Samples

The mean age of respondents is 20.5 years. A large number of girls i.e. 60 percent belongs to nuclear family, followed by joint 37.2 percent, and extended 2.8 percent. 36 percent respondents are from lower class families, 43.2 percent respondents are from lower middle class family, 14.4 percent from middle class 6.4 percent from higher class. Regarding education of mother in the study, 6.8 percent mothers of

respondents are illiterate, 30 percent have acquired education of primary and middle level, 49.2 percent mother were higher secondary educated and only 14 percent were educated up to college level.

RESULT

Antenatal Care

Table 1 show that all the girls 100 percent accepted that pregnant women needs special care. 60.8 percent consider pregnancy as a normal physiological process, while 20 percent consider pregnancy as a special condition, 7.2 percent girls consider it as disease and 12.0 percent girls did not give any response on this important issue. 74.8 percent girls knew that daily routine work can be done by pregnant women 16.8 percent of students were not in favor of the same 8.4 percent girls have not responded.

Regarding the source of information of attitude towards pregnancy among other backward classes (OBC) it is revealed that electronic media informed 51.2 percent girls, print media informed 22.8 percent and 26.0 percent girls had been informed by interpersonal communication. Further analysis shows that in electronic media 6.2 percent girls have been informed through radio and 93.7 percent girls have been informed by television. In print media 70.1 percent girls communicated through magazines and 29.8 percent girls have informed through newspaper. In

Table 2: Source of First Information Regarding Special Care During Pregnancy

Total girls	Electronic media			Print media			Interpersonal communication			
	Total	Radio	TV	Total	Magazine	News paper	Total	Friend	Teacher	Family member
OBC (250)	128	8	120	57	40	17	65	5	17	43
%	51.2	6.2	93.7	22.8	70.1	29.8	26.0	7.6	26.1	66.1

OBC: Other Backward Class.

Table 3: Awareness Towards Antenatal Care

Total girls	Required visit to Doctor for consultation during pregnancy period				Tetanus toxoid injection should be given to pregnant			Folic acid tablet given to pregnant for			
	Once	Twice	< Twice	Every month	Yes	No	Not known	Anemia prevention	For strong bones	For eyes	No response
OBC (250)	0	10	16	224	166	4	80	176	52	2	20
%	0	4.0	6.4	89.6	66.6	1.6	32.0	70.4	20.8	0.8	8.0

OBC: Other Backward Class.

interpersonal communication it is noted that 7.6 percent girls have been communicated through friend, 26.1 percent by teacher and 66.1 percent girls have communicated through family members (Table 2).

Regarding Antenatal care in the study it is revealed that no girls have mentioned that one visit to doctor for consultation during pregnancy period is enough, 4.0 percent girls knew twice, 6.4 percent girls knew more than twice and 89.6 percent girls knew that every month visit to doctor for consultation is necessary. 66.6 percent girls understands that tetanus toxoid injection should be given to pregnant, 1.6 percent girls knew it should not be given and 32.0 percent girls have no idea. 70.4 percent girls knew that folic acid tablets prescribed to pregnant women is for anemia prevention, 20.8 percent knew for strong bones, 0.8 percent girls knew for healthy eyes and 8.0 percent girls did not give any response (Table 3). Regarding the first source of information about the necessity of tetanus toxoid injection it is revealed that electronic media has informed 65.2 percent girls, print media has informed 23.4 percent and 9.6 percent girls have been informed by interpersonal communication. Further analysis shows that in electronic media 16.2 percent girls have been informed through radio and 83.7 percent girls have informed by television. In print media 53.8 percent girls have been communicated through magazines and 46.1 percent girls have been informed

through newspaper. In interpersonal communication it is noted that 25.0 percent girls have been communicated through friend, 50.0 percent by teacher and 25.0 percent girls have been communicated through family members (Table 4).

For teenage girls, the extra nutritional demands of pregnancy are additional to the nutritional demands to fuel the growth spurt, both of which can combine to culminate in the poor nutritional status of the pregnant adolescent [19, 20]. Regarding antenatal nutritional care awareness Table 5 shows that 96 percent girls correctly accepted that there is requirement of extra nutrient in pregnancy period and 4.0 percent stated that there is no need of extra nutrient, 56.6 percent girls consider that all the nutrients should be given in extra amount, where as need of protein 15.8 percent Iron 12.0 percent calcium 12.0 percent and vitamin A. 3.3 percent is indicated by girls. 71.2 percent girls accept that after delivery mothers should be given special foodstuff, 8.0 percent are not in favor and 20.8 percent girls did not give any response. Regarding first source of information about knowledge of provision of extra nutrient to pregnant, it has been found that electronic media informed 55.0 percent girls, print media informed 18.7 percent and 25.2 percent girls have been informed by interpersonal communication. Further analysis shows that in electronic media 17.4 percent girls have been informed through radio and 82.5 percent girls

Table 4: Source of Information Regarding Tetanus Toxoid

Total girls	Total response	Source of first information regarding Tetanus toxoid injection									
		Electronic media			Print media			Interpersonal communication			
		Total	Radio	TV	Total	Magazine	News paper	Total	Friend	Teacher	Family member
OBC (250)	166	111	18	93	39	21	18	16	4	8	4
%	68.0	65.2	16.2	83.7	23.4	53.8	46.1	9.6	25.0	50.0	25.0

OBC: Other Backward Class.

Table 5: Attitude and Awareness Regarding Nutritional Care During Pregnancy

Total girls	Need of extra nutrient to pregnant		Girls responded	Nutrient to be given in extra amount to pregnant					Total girls	Requirement of specific food for mothers (after delivery)		
	Yes	No		Iron	Protein	Calcium	Vit A	All		Yes	No	No response
OBC (250)	240	10	240	29	38	29	8	136	OBC 250	178	20	52
%	96.0	4.0	96.0	12.0	15.8	12.0	3.3	56.6	%	71.2	8.0	20.8

OBC: Other Backward Class.

Table 6: Source of Information Regarding Nutritional Care During Pregnancy

Total girls	Aware girls	Source of first information regarding extra nutrient recommended to pregnant.									
		Electronic media			Print media			Interpersonal communication			
		Total	Radio	TV	Total	Magazine	News paper	Total	Friend	Teacher	Family member
OBC (250)	240	132	23	109	45	32	13	63	12	13	38
%	96.0	55.0	17.4	82.5	18.7	71.1	28.8	25.2	19.0	20.6	60.3

OBC: Other Backward Class.

have been informed by television. In print media 71.1 percent girls have been communicated through magazines and 28.8 percent girls have been informed through newspaper. In interpersonal communication it is noted that 19.0 percent girls have been communicated through friend, 20.6 percent by teacher and 60.3 percent girls have been communicated through family members (Table 6).

Regarding specific foodstuff given to mothers for better health of child and herself 29.2 percent girls mentioned that 'Harira' (An Indian recipe specially developed for mothers of new born comprising of Desi Ghee (Animal fat), dry fruits, Jaggery and herbs), 23.0 percent girls mentioned Daliya (Porridge), 21.3 percent girls mentioned, Poshtik Laddoo (Nutritious balls) 15.1 percent girls mentioned Milk and 11.2 percent girls mentioned that Black tea should be given to mothers to meet their nutritional needs (Table 7).

Postnatal Care

The birth weights of newborns appear to be linearly correlated with both maternal body weight and height. Naidu *et al.* [21] they found that mean birth weights of infants improved as the BMI value of mothers moved from grade 3 CED (BMI <16.0) to normal BMI value (between 18.5-25). Table 8 reveals that 24 percent of students knew that the normal weight of a neonate should be 3 kg while 20 percent girls knew 2.5 kg, 12 percent 3.5 kg, 12.8 percent 2 kg and 9.6 percent girls knew 4 kg followed by 2.4 percent girls knew 1 kg. 12.8 percent girls did not give any response regarding weight of neonate. Mother milk should be first food given to neonate is universally accepted (100 percent) in the study. It is a good sign for child health. But only 38.4 percent of girls having knowledge of healthy effects of colostrums and 51.2 percent did not have any knowledge of colostrums. 10.4 percent girls did not give any response.

Table 7: Nutritional Care of Mother

Total girls	Girls responded	Requirement of specific food stuff for mothers after delivery										
		Daliya	Laddoo	Milk	Harira	Black Tea	Fruits	Pulse	Egg	Khichdi	Green Vegetables	Nutritious Diet
OBC (250)	178	40	38	28	52	20	0	0	0	0	0	0
%	71.2	22.4	21.3	15.7	29.2	11.2	0	0	0	0	0	0

OBC: Other Backward Class.

Table 8: Scenario of Awareness Towards Neonatal Care

Total girls	Knowledge regarding normal weight of newborn							First feed to neonate				Importance of colostrum		
	No response	(In kg.)						No response	Mother milk	Cow milk	Buffalo milk	Yes	No	No response
		1	2	2.5	3	3.5	4+<4							
OBC (250)	32	6	32	50	60	30	40	0	250	0	0	96	128	26
%	12.8	2.4	12.8	20.0	24.0	12.0	16.0	0	100.0	0	0	38.4	51.2	10.4

OBC: Other Backward Class.

Regarding source of information of knowledge about normal weight of neonate study reveals that electronic media informed 44.0 percent girls; print media informed 22.9 percent and 33.0 percent girls have been informed by interpersonal communication. Further analysis shows that in electronic media, radio was the source of information for 12.5 percent girls and television for 97.5 percent girls. In print media 76.0 percent girls communicated through magazines and newspaper informed 24.0 percent girls. In interpersonal communication it is noted that 8.3 percent girls have been communicated through friend, 47.2 percent by teacher and 44.4 percent girls have been communicated through family members (Table 9). Regarding first source of information for first feed of neonate, it is found that electronic media informed 57.6 percent girls, print media informed 14.4 percent and 28.0 percent girls were informed by interpersonal communication. Further analysis shows that in electronic media 9.7 percent girls have been informed through radio and 90.2 percent girls have been informed by television. In print media 61.1 percent girls have been communicated through magazines and 38.8 percent girls have been informed through newspaper. In interpersonal communication it is noted that 17.1 percent girls have been communicated through friend, 25.7 percent by teacher and 57.1 percent girls have been communicated through family members (Table 10). Regarding source of information of knowledge about colostrum study reveals that electronic media

informed 50.0 percent girls, print media informed 9.3 percent and 40.6 percent girls informed by interpersonal communication. Further analysis shows that in electronic media 22.9 percent girls informed through radio and 77.0 percent girls have been informed by television. In print media 77.7 percent girls have been communicated through magazines and 22.2 percent girls through newspaper. In interpersonal communication it is noted that none of the girls has been communicated through friend, 46.1 percent by teacher and 53.8 percent girls have been communicated through family members (Table 11).

It has been found that 28.8 percent girls are aware that six months and 28.8 percent girls knew above six months is correct age for introduction of semi solid supplementary food to infant. While 9.6 percent knew 5 months, and 17.6 percent accepted 4 months, 11.2 percent girls knew that 3 months is suitable age, 1.6 percent mentioned 2 months is right age to introduce first semisolid food to child, 3.2 percent girls have not responded. 91.2 percent girls accepted salt sugar solution should be given to child to correct dehydration at home while 4.0 percent preferred medicine and another 4.0 percent knew sago water (made up of sago boiled in water with sugar and salt) can be given to infants for treating diarrhea. 0.8 percent girls have not responded. 97.6 percent girls are aware of oral rehydration solution and only 2.4 percent does not have any knowledge of oral rehydration solution (Table

Table 9: Source of Information Regarding Normal Weight of Neonate

Total girls	Total response	Source of information regarding normal weight of neonate.									
		Electronic media			Print media			Interpersonal communication			
		Total	Radio	TV	Total	Magazine	News paper	Total	Friend	Teacher	Family member
OBC (250)	218	96	12	84	50	38	12	72	6	34	32
%	87.2	44.0	12.5	97.5	22.9	76.0	24.0	33.0	8.3	47.2	44.4

OBC: Other Backward Class.

Table 10: Source of Information Regarding First Feed of Newborn

Total girls	Total response	Source of first information regarding mother milk as first feed of newborn.									
		Electronic media			Print media			Interpersonal communication			
		Total	Radio	TV	Total	Magazine	News paper	Total	Friend	Teacher	Family member
OBC (250)	250	144	14	130	36	22	14	70	12	18	40
%	100.0	57.6	9.7	90.2	14.4	61.1	38.8	28.0	17.1	25.7	57.1

OBC: Other Backward Class.

Table 11: Source of Information Regarding Knowledge of Colustrums

Total girls	Total response	Source of information regarding Knowledge of importance of colustrums.									
		Electronic media			Print media			Interpersonal communication			
		Total	Radio	TV	Total	Magazine	News paper	Total	Friend	Teacher	Family member
OBC (250)	96	48	11	37	9	7	2	39	0	18	21
%	38.4	50.0	22.9	77.0	9.3	77.7	22.2	40.6	0	46.1	53.8

OBC: Other Backward Class.

12). Regarding first source of information of oral rehydration solution it is revealed that electronic media informed 71.7 percent girls, print media informed 11.0 percent and 17.2 percent girls have been informed by interpersonal communication. Further analysis shows that in electronic media 15.4 percent girls have been informed through radio and 84.5 percent girls have been informed by television. In print media 40.7 percent girls were communicated through magazines and 59.2 percent girls were informed through newspaper. In interpersonal communication it is noted that 54.7 percent girls were communicated through friend, 26.1 percent by teacher and 19.0 percent girls were communicated through family members (Table 13).

Regarding immunization 222 girls responded, 87.1 percent are aware that children should be vaccinated

while 11.2 percent have no idea and 1.6 percent have denied the need of vaccination for children 73.6 percent girls correctly accepted there is no ill effect of vaccination, 15.2 percent girls have no idea out ill effect of vaccination and 8.8 percent knew that there is ill effect of vaccination 56 percent girls agree that vaccination can be given during illness, while 23.2 percent have no idea and 20.8 percent advocates that vaccination cannot be given when child is sick (Table 14).

DISCUSSION

Antenatal Care

According to the few papers on healthcare utilization, adolescents are less likely to seek or receive maternal care [22, 23]. Shah and Arya [12] reported

Table 12: Knowledge of Introduction of Semisolid Food and Diarrhea Management

Total girls	Age for introduction of semisolid food to child (In months)							Treatment of diarrhea at home by				Ever heard about O.R.S*	
	No response	2	3	4	5	6	<6	Medicine	Salt sugar solution	Sago water	No response	Yes	No
OBC (250)	8	2	28	44	24	72	72	10	228	10	2	244	6
%	3.2	1.6	11.2	17.6	9.6	28.8	28.8	4.0	91.2	4.0	0.8	97.6	2.4

Oral rehydration solution OBC: Other Backward Class.

Table 13: Source of Information Regarding Knowledge of ORS

Total girls	Girls having information	Source of first information regarding Knowledge of ORS.									
		Electronic media			Print media			Interpersonal communication			
		Total	Radio	TV	Total	Magazine	News paper	Total	Friend	Teacher	Family member
OBC (250)	244	175	27	148	27	11	16	42	23	11	8
%	97.6	71.7	15.4	84.5	11.0	40.7	59.2	17.2	54.7	26.1	19.0

OBC: Other Backward Class.

Table 14: Immunization Awareness

Total girls	Children should be vaccinated			Bad effect of vaccination				Vaccination can be given during illness			
	Yes	No	Not known	Yes	No	Not known	No response	Yes	No	Not known	No response
OBC (250)	218	4	28	22	184	38	6	140	52	58	0
%	87.2	1.6	11.2	8.8	73.6	15.2	2.4	56.0	20.8	23.2	0

OBC: Other Backward Class.

that adolescent girls are aware of dietary care aspects, similar to our study girls are aware of medical checkup and tetanus vaccination in pregnancy. In their study they also revealed that about half of the respondents knew about colostrums, 67 percent of the girls knew about supplementary food.

The awareness of antenatal checkup is low in weaker section of society found in NFHS II. About 43 percent of tribal women and one third of women belonging to schedule castes did not have a single check up during pregnancy while this percentage was about 25 percent among women who belong to castes other than SC and other backward class. In the analysis of women from weaker section it is revealed that 50 percent of them received the recommended Iron and Folic acid supplementation, 55 percent women from low standard of living were given two or more Tetanus toxoid, Injection [24].

Kapil *et al.* [25] reported that a total of 86.16 percent of urban girls of Delhi had correct knowledge about prenatal dietary care aspects. Contrary to the results of this study Verma *et al.* [26] and Nehra [27] reported that the mothers are generally unaware of the tetanus toxoid injections whereas Punia [28] reported that most of the respondents attended antenatal clinics in Haryana only during the third trimester of pregnancy.

The key indicators 2003 from the second round of RHS survey reveals that the percentage of women who

received full Antenatal care in Chattarpur district of Madhya Pradesh is only 0.4 to 0.7 percent [29].

Post Natal Care

Among the disadvantaged group about 14- 18 percent have a post partum checkups. Children from tribal, illiterate or from low standard of living had not received full schedule of immunization programme. The data shows the urgent need for households awareness especially for the socially and economically disadvantaged group who are likely to go to quacks if proper knowledge and services are not provided.

Outreach of IEC Services

In the study electronic media is most effective regarding source of information, followed by print media and interpersonal communication. The utilization of Information communication and education services among weaker section is less not only because they do not reach to them but because the fact that awareness about the need for this services is very low in these section. They also have some deep rooted cultural inhibitions or taboos related to maternal care, hence the role of IEC is very crucial [24].

CONCLUSION

The issues related to adolescent health, and particularly to adolescent pregnancy and improved

child health outcomes, are prevention of early marriages. The present study is an attempt to find out the extent of awareness of girls towards maternal health care. The study reveals some surprising facts important information like colostrums, nutritional requirement and immunization are still lacking on their part. The data analyzed related to knowledge and awareness towards health care indicates that pregnancy period needs special attention and care. Mother's milk as first food to Neonate is universally accepted in the study. College girls of Jabalpur City are quite aware of antenatal and postnatal care. It is well accepted that adolescent health and development approach, with reproductive and sexual health including maternal health care awareness as the main strategy, will influence maternal and infant health. Proper knowledge should be provided to girls by interpersonal communication by family members,

Conclusion of the study is that there is a lack of knowledge among youth regarding some of the vital functions and process of their body and maternal health, parents and teachers have lack of responsibility to cater the basic information regarding maternal health. In a developing country like India medical practitioners can no longer confine their role to diagnosing ailments, or Teacher cannot confine their role to teaching prescribed syllabus but they have to play the role of educators, counselors, and as the agents of social change. It is need of the hour that we should act now for adolescent's health as they are our biggest investment for the future which in turn help us to achieve the set demographic and population goals for India.

RECOMMENDATIONS

In India 50 percent of girls get married much before the age of maturity. In this respect maternal care awareness is necessary for girls to avoid problems of maternal health. Today approximately one fifth of the world's population are adolescents, when young people strive to fulfill their physical, intellectual, emotional, spiritual and artistic potential, they contribute enormously to society (WHO). Therefore their maternal health is very important. Information education & communication (IEC) is a wonderful tool to create awareness, which can be easily performed through counseling in a whole. Teacher parents, doctors, social workers, professionals, education material and guidelines can play a significant role in generating awareness of efficient counselor. Regarding mass media communication television has a large no of

young audiences; the visual aspect enhances its interest & impact. It can relay information about reproductive health through serials & dramas. Information technology can also help in communicating such important information through mobile messages, as the consumer percentage of youth for mobiles is very high. Interpersonal communication can also prove to be helpful, through organizing health sessions with doctors, followed by question & answers session.

Parents have great responsibility to prepare their daughters to be successful homemaker as well as healthy mother of healthy children to make healthy and cheerful family. This could only be possible when parents will equip them by passing timely proper knowledge for their future parenthood.

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