AWARENESS AND ATTITUDE OF RURAL ADOLESCENT GIRLS REGARDING REPRODUCTIVE HEALTH ISSUES IN NORTHERN INDIA

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ABSTRACT:

Background: Since adolescent girls comprise a major reproductive age group, their role is critical in determining the India's future population goal. This apart, evidence of change in sexual behavior and growing spread of HIV infection, has generated fresh reproductive health concerns, which need to be accounted for by policy makers to develop appropriate family life educational strategies.

Objectives:

- 1. To assess the level of knowledge of pubertal changes, reproductive tract infections and HIV/AIDS among adolescents.
- 2. To assess the attitude of adolescent girls regarding age at marriage, age at first birth, small family concept.
- 3. To identify the preferred source of information by adolescents on reproductive health.

Study design: cross-sectional study

Sampling Technique: thirty cluster methodology

Study setting: Rural areas of Lucknow

Participants: 455 unmarried adolescent girls of (10-19 years) age

Statistical Analysis: Chi square test and Fischer exact test

Result: Three fourth of the girls were aware of at least one pubertal change. In spite of being aware that RTI is a curable disease, only 8.5% of the girls having RTI sought treatment for it. About 80% of adolescent girls had heard of HIV/AIDS. 47.7% of adolescents were unaware that it is incurable. Heterosexual relation was cited by most (73.2%) of the girls as mode of transmission of HIV. Sex with partner only and use of condom as a preventive measure was identified by 52.6% and 39.2% girls respectively. Early marriage and early child bearing (<21 years) was preferred by 10.7% and 33.6% of girls respectively. Family size of two or less was preferred by 69.2% Irrespective of any age group, majority of the girls preferred a family member to get information on reproductive health problems.

Introduction:

Adolescents account for a little more than one fifth of the population (21.4%) and adolescent girls comprise about 22% of women in India. Girls face greater reproductive health challenges than boys following puberty. Foremost among these are early marriage and childbearing. According to NFHS(1998 -99)^{2,3} the mean age of marriage for women in India is 19.7 years, which in case of Uttar Pradesh decrease to 19.0 years (18.3 in rural areas). The age specific fertility rate is 121 per 1000 for the 15 -19 age group for all India and 137 for rural Uttar Pradesh. Fertility among rural adolescents of 15 - 19 years accounts for 16% of total fertility in rural areas and 15% overall in the state^{2,3}.

This apart, in recent years, with globalization and liberalization, wide exposure to mass media, and shifting of social and moral norms, there has been a host of changes in adolescent reproductive and sexual behavior. These changes has not confined to urban areas only but has spread to rural areas also. In a study conducted in senior secondary schools in rural Delhi, 23.4% boys and 15.1% girls admitted to have had sex, while 5.7% boys and 9.6% girls did not deny it Almost half of the students had permissible attitude of pre-marital sex⁴. These facts warrant an investigation to identify the

attitude and gaps in the knowledge of adolescent's girls regarding various reproductive health issues so that realistic and most needed health care services, education, and training programs can be planned and organized; with emphasis on areas where inadequate knowledge is a constraint.

Material and Methods:

Sample size of 480 adolescents was calculated by using formula 4P/d2, taking P= 50% (Prevalence of knowledge of adolescents girls on reproductive health), and absolute error d = 5, and 20% non response. Only unmarried girls between 10 19 years age, who were present in the house at the time of study were included. Total 479 unmarried adolescents (10 19 years) were found eligible for study. After data editing, 455 interviews were finally included in the data analysis. Girls were interviewed by female interviewer using structured, predetermined, close - ended schedule after taking due consent from parents or elder family members. To provide more insight on knowledge, attitude, and problems of different age groups during analysis they have been grouped according three phases of development of adolescence, early (10-13years); middle (14-16 years); late (17-19 years) adolescence⁵. Only those girls who had attained the menarche at the time of interview were asked for RTI symptoms. Data regarding RTI and HIV/ AIDS were not included from 'early adolescence' age group, because for this section non response was very high among them. Secondly due to sociocultural constraints it was not possible to interview this age group on these issues in some of the villages.

Observtions:

Total 455 rural unmarried girls in Luck now district were interviewed regarding their knowledge, attitude towards reproductive health issues. In the study, 40.7%, 35.6%, 23.7% girls were from (10 to 13 yrs), (14 to 16 yrs), and (17 to 19 yrs) age groups respectively. Out of the total girls interviewed 81.0% were Hindus; 30.3% belonged to OBC and 28.1% belonged to general caste. Among 455 girls, 11.4% were illiterate, 38.4% were educated up to primary level, and only 7.9% were educated up to intermediate level.

Awareness of any of the pubertal change (table 1) was very low among early adolescence (10-13 years). Even, in case of respondents knowing about pubertal changes; knowledge was mainly confined to initiation of menstruation and development of breast across all age groups. Family members, especially mothers (52.0%) were the most important source of information for adolescent. With increase in age, friends (18.1%) also served as a source of information. Mean age of menarche is 13.37 ± 1.79 years in the study. Knowledge about menstruation was very low among early adolescents. In spite of 66% adolescents had attained menarche, only 35.6% have knowledge of it. Amongst 293 girls who have reached menarche, 48 girls reported at least one menstruation related health problem. Majority were suffering from dysmenorrhea (58.3%) followed by delayed periods (22.9%) and excessive bleeding (20.8%). But majority (80.0%) of the girls remains without any consultation/treatment.

Knowledge of RTI was significantly higher in elder age group (table 2) but in total awareness was very low, less than half of the adolescents were aware of RTI. Major source of information was television (52.35%) followed by friends/relatives (38.2%). Few elder adolescents (12.9%) also got information from their school teacher. Role of Health worker was almost nil in imparting information. Prevalence of RTI was higher among elder age group (44.4%). But, as far as seeking treatment for RTI is concerned, no significant difference was found between the two age groups, in spite of the fact that more than two third girls (83.5%) opined that RTI is curable.

About 17% of adolescents in the study had never heard of HIV/AIDS (table 3). Sources of information were almost similar for both the age groups. Knowledge of various mode of transmission of HIV/AIDS as well as prevention was significantly higher among late adolescents in comparison to 14-16 age groups. Younger age group was significantly less aware of importance of screening blood prior to transfusion and use of sterilizing needles as preventive measures. Few girls (11%-17%) had misconceptions regarding transmission of HIV. High proportions of them opined HIV/AIDS is curable and no significant difference was found between the

two age groups. Responsible attitude for preferred age of marriage was found universal (table 4). In present study preferred mean age at first child birth is 20 years. Most of the respondents were in favor of small family norm and birth spacing of three years or more however difference is significant between the two age groups.

The study (table 5) revealed that only 60.0% girls perceived need of more information about reproductive health. Need of information was significantly less perceived by early adolescents. Irrespective of age, majority of the girls prefer to have information on reproductive health issues from family members. As an alternative source of information, late adolescence (17-19 years) age group preferred doctor while early and middle age group preferred to seek information through their school teacher. Older age group also showed inclination for getting information on reproductive health issues from youth clubs.

Discussion:

Development and Maturation Changes during Adolescence:

One fourth of the girls were ignorant about the physical changes during adolescence. It is of concern that among 10-13 years age group, in whom pubertal changes have just started or going to start; more than half of the girls were unaware of any of one of the pubertal changes. In spite of having reached the menarche, only few girls of 10 -13 age group had the knowledge of menstruation. Amongst older age group also, which has already reached menarche, only 70.7% girls have some knowledge about menstruation, hygiene, and problems. Anne' found that girls wished to be informed early about menstruation so that this does not come to them as a surprise. Lack of awareness is also reflecting in usage of washed and sun dried clean cloth by only 12.2% of the adolescents across all age group. Majority of girls were using old cloth during menses. This might be due to poverty or high cost of sanitary pads. Therefore, it is important; that girls should at least be told to use a properly washed and sun dried cloth.

Overall, at least one menstruation related health problem was reported by 48 girls but majority (80.0%) of these girls remains without any treatment in spite of the fact that they were aware about the nearby health facility. This indicates that adolescents not need to be informed only of pubertal changes and problems related to them but also of the proper place/person for treatment of these problems so that they can take responsible decision during their growing years and which will be helpful in changing their health seeking behavior in the long run also. Early adolescence age group needs special attention as we found that in this age group where the menstrual related problems were highest among all age group, none of them sought any treatment for it.

Awareness about RTI and Prevalence of RTI:

In the present study only less than half of the girls have knowledge about reproductive tract infections. Even girls in elder age group were less aware. Community based study in rural West Bengal also reported that only 22.7% women (15-19) were aware about RTI. 34.8% girl reported one or more symptoms related to RTI. It was surprising that more than two third girls in present study opined that RTI is curable and majority of them were also aware about the nearby available health facility but only few (8.5%) of them sought treatment. This indicates that reproductive health programs that seek to reach adolescents, who are at particular risk of RTIs, must develop special programs to address RTI problem and misconceptions related to it. They should highlight through these programs about the importance of treatment of reproductive tract infection in the adolescents. Information regarding necessity of prompt reporting and early treatment from appropriate health personnel is to be provided to them. With evidence of increasing numbers of sexual active unmarried adolescents, it becomes more important to impart accurate knowledge of RTI/STI to this age.

Awareness about Mode of Transmission and Prevention of HIV/AIDS:

Having heard of HIV/AIDS is a first step in prevention of this disease. Our study found that 82.9% of the rural adolescents (14 19 yrs) have heard of AIDS which is higher than the national level² and state level data⁸. This is indicative of the positive impact of efforts of Family Health Awareness Campaigns and School AIDS Education Programme running by government in the district at community level and in schools respectively. But, despite having heard of HIV/AIDS, knowledge about various mode of transmission of HIV/AIDS was low; only about half of the girls were aware that something can be done to prevent AIDS. The most commonly mentioned way is to have only one sex partner (52.6%). Heterosexual intercourse as mode of transmission was known to about three fourth of the respondents but only 39.2% girls mentioned use of condom during each intercourse as a preventive measure. In the study only less than half of the respondents were aware about the necessity of screening blood prior the transfusion and importance of sterilized syringes/ needles as a preventive measure, especially this knowledge was poor among younger age group. Few were aware about the mother to child transmission. There is need to emphasize information regarding safe blood and safe injections to this group as they are becoming major mode of transmission of HIV/AIDS in our country. It is encouraging to observe that only few girls had misconceptions regarding transmission of HIV/AIDS. This may be the positive impact of various educational campaigns made by government/non government agencies for making the populace aware of the facts associated with AIDS transmission. Our endeavor should be to ensure that this continues to be the special focus of family health awareness campaigns in the community or school workshops on AIDS etc. This will also be helpful in guiding the behavior/attitude of future generation towards people living with AIDS.

Age at Marriage, First Birth, Birth Spacing, and Family Size:

(NFHS 1998-99)² in India revealed that 50 percent of women aged 20-24 are married before 18 years and 25%

before age 15, with the rural percentage of 58.6 being a sharp contrast to urban percentage of 27.9. NFHS -3 (UP)8 reported 61.1% of rural women age 20-24 married by age 18. In such scenario, it was encouraging to find that 89.2% of the girls in the present study were in favor of marriage after 18 years of age; and less than one third of the adolescents favored for more than two children, however 10.7% of the girls still preferred early marriage and about one third of the girls preferred less than 21 years as right age at first birth and only one third preferred more than three years gap between two children. This shows that intensive IEC efforts are needed to mould the attitude of the adolescents. Since they comprise a major reproductive age, what happens in the future depends to a large extent, on the decisions taken by adolescents as they enter their reproductive years. It is needed to raise awareness among rural girls regarding ill consequences of early marriage, early child bearing, and too many children at an early age.

Preferred Source of Information:

The present study indicated that, perceived need of more information on reproductive health issues is low across all age groups especially among early adolescent group. As for source of information, Irrespective of age, majority of adolescents preferred to have information on reproductive health issues from their family members. In other studies also girls preferred to consult parents for help at times of having reproductive health problems. However in comparison to elder age group more early and middle adolescents preferred school for such information. This shows parents and teachers can play a crucial role in giving information. This makes it imperative that parents and teachers should be included in the interventional program from the very beginning; particularly due to socio-economic milieu of rural area. Another reason may be unawareness of mother or they also simply do not perceive a need of treatment for reproductive health problems. This can be corroborated with the findings of NFHS-2 (UP) and NFHS-3(UP) that in spite of having reproductive health problems most of the women did not seek any treatment. In such situation, it is needed to make family members, especially mothers of adolescent girls also aware of the reproductive health problems and necessity of treatment. Mothers and elder women of the area are made a part of such health education programs. Teachers training Programmes e.g., B.Ed etc should have reproductive health education as one of its components.

Conclusion:

There is an increase in knowledge about various reproductive health issues among adolescents showing the effect of efforts made by RCH, ICDS, FHAC, and NACO programmes. But still adolescent girls across all age group need more accurate health education about pubertal changes, gynecological morbidities, HIV/AIDS. As knowledge is low among the early and middle age groups especially, information impartation must begin at an early stage before reproductive health has already been compromised. Mass media is playing an important role in transmitting knowledge

of HIV/AIDS and RTI but family members, relatives; school teachers can prove to be more effective source for dissemination of information about reproductive health as they are preferred by most of the adolescents. It is important to note in the study, that in spite of knowing of curable nature

of RTI and nearby health facility, adolescents are not seeking treatment for it. Further research is needed to understand indepth the reasons for not seeking the health care for RTI by unmarried adolescents, so that necessary changes may be made in health care policy and delivery system in the state.

Table 1
KNOWLEDGE PERTAINING TO PUBERTAL CHANGES AMONG RURALADOLESCENTS GIRLS

5) \$(8.0) \$(6.2) 9.4	10 to 13 Yrs N=185	14 to 16 Yrs N=162	17 to 19 Yrs N=108	Total N=455	P Value
Knoledge of about at least one change in body in adolescence#	80 (43.2)	139 (85.8)	106 (98.1)	325 (71.4)	0.000
Appearance of pimples/oily skin	20 (18.7)	23 (13.6)	29 (21.6)	37 (11.3)	0.1
Breast development	36 (45.0)	87 (62.5)	83 (78.3)	206 (63.3)	0.0000*
Weight gain	10 (12.5)	20 (14.3)	22 (20.7)	52 (16.0)	0.2
Intiation of menstruation	57 (71.5)	129 (92.8)	98 (92.4)	284 (87.4)	0.000*
Growth of pubic/under arm hair	14 (17.5)	34 (24.4)	28 (26.4)	76 (23.3)	0.3
Source of information					
School teacher	6 (7.5)	11 (7.9)	2 (1.8)	19 (5.8)	0.10
Mother	46 (57.5)	61 (43.8)	57 (53.7)	169 (52.0)	0.1
Sister / Sister in law	11 (13.7)	19 (13.6)	13 (12.2)	43 (13.2)	0.9
Friends	7 (8.7)	29 (20.8)	23 (21.6)	59 (18.1)	0.04*
Health worker	0 (0.0)	2 (1.4)	0 (0.0)	2 (0.6)	0.2
Books / Magazine/ Films	1 (1.2)	1 (0.7)	3 (0.9)	5 (0.9)	0.9
Others (Mausi, Bua, etc.)	8 (10.0)	16 (11.5)	8 (7.5)	32 (9.8)	0.5
Have Knowledge about menstruation	66 (35.6)	149 (91.9)	108 (100.0)	323 (70.7)	0.000*
Menstruation started	44 (66.6)	141 (87.0)	108 (100.0)	293 (64.3)	
Material used during menstruation					
Sanitary pad	2 (4.5)	10 (7.0)	15 (13.8)	27 (9.2)	0.09
Clean cloth washed & dried	4 (9.0)	21 (14.8)	11 (10.1)	36 (12.2)	0.4
Old cloth ,	38 (86.3)	106 (75.1)	79 (73.1)	223 (76.1)	0.20
Home made cotton pads	0 (0.0)	4 (2.8)	3 (2.7)	7 (2.3)	0.5
Had menstruation related problems in last 3 months	9 (20.4)	19 (13.5)	20 (18.5)	48 (16.4)	0.4
South Treatment for menstural problems	0 (0.0)	4 (21.0)	6 (30.0)	10 (20.8)	0.1

#Multiple response, *P<.05

Table 2
PREVALENCE OF RTI AND TREATMENT SEEKING PATTERN AMONG RURAL ADELESCENTS

	14 to 16 Yrs	17 to 19 Yrs	Total	P Value
200.0	N = 162	N = 108	N=270	THE REST
Heardof RTI Source of Information#	66(40.07)	62(57.4)	128(47.4)	0.01*

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Radio	23(34.8)	24(38.7)	47(36.7)	0.78
TV - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	32(48.4)	35(56.4)	67(52.3)	0.46
Newspaper/Magazime	0(0.0)	5(8.0)	5(3.9)	0.02*
Wall writing/ Hoardings	0(0.0)	1(1.6)	1(0.7)	0.4
Friends/Relatives	31(46.9)	18(29.0)	49(38.2)	0.05
Doctor	0(0.0)	3(4.8)	3(2.3)	0.1
Health worker	3(4.5)	5(8.0)	8(6.2)	0.4
School teacher	2(3.0)	8(12.9)	10(7.8)	0.04*
Having RTI symptoms in last 3 months RTI symptoms*	46(28.3)	48(44.4)	94(34.8)	0.3
Foul smelling vaginal discharge	15(32.6)	10(20.8)	25(26.5)	0.4
Urethral discharge	- 1(2.1)	3(6.2)	4(4.2)	0.6
Genital ulcer	1(2.1)	1(2.0)	2(2.1)	0.9
Pain in lower abdomen	31(67.4)	41(85.4)	72(76.5)	0.1
Low backache	28(60.8)	35(72.9)	63(67.0)	0.5
Pain/Burning micturition	8(17.4)	8(16.6)	16(17.0)	0.9
Sought Treatment for RTI	2(4.3)	4(8.3)	8(8.5)	0.7

#Multiple answers, *Multiple responses, *p<0.05

Table 3
KNOWLEDGE ABOUT MODE OF TRANSMISSION, PREVENTION, AND SOURCE OF INFORMATION FOR HIV/AIDS AMONG RURAL ADOLESCENTS

0.0 (8.0) C (7.0) (8.0)	14 to 16 Yrs N=162	17 to 19 Yrs N=108	Total N=270	P Value
Heard about HIV/AIDS Source of information#	127(78.3)	97(89.8)	224(82.9)	0.01*
Radio	77(60.6)	64(65.9)	141(62.9)	0.4
TV	110(86.6)	86(88.6)	196(87.5)	0.7
Newspaper/Magazine	11(8.6)	17(17.5)	28(12.5)	0.07
Wall writing/Hoardings	3(2.3)	8(8.2)	11(4.9)	0.06
Friends/Relatives	15(11.8)	13(13.4)	28(12.5)	. 0.8
Doctor (81	2(1.6)	1(1.0)	3(1.3)	1.0
Health worker	8(6.2)	4(4.1)	12(5.3)	0.6
School teacher	12(9.4)	12(12.3)	24(10.7)	0.6
Knowledge about mode of transmission of HIV/AIDS#	201	Month Insulai	SIB (ÅLDVER)	of Book
Homosexual intercourse	2(1.5)	4(4.1)	6(2.6)	0.5
Heterosexual intercourse	80(62.9)	84(86.5)	164(73.2)	0.00*
Needles/Blades/Skin punctures	68(53.5)	70(72.1)	138(61.6)	0.00*
Mother to child	18(14.1)	33(34.0)	51(22.7)	0.00*
Transfusion of infected blood	59(46.4)	62(63.9)	121(54.0)	0.00*

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Misconception regarding transmission of HIV/AIDS#		2016	hin out record	a nga in-
Shaking Hand	19(14.9)	7(7.2)	26(11.6)	0.1
Hugging	18(14.2)	8(8.2)	26(11.6)	0.2
Kissing	22(17.3)	8(8.2)	30(13.3)	0.07
Sharing clothes	20(15.7)	7(7.2)	27(12.0)	0.08
Sharing eating utensils	21(16.5)	7(7.2)	28(12.5)	0.05
Stepping on urine/stool	23(18.1)	7(7.2)	30(13.3)	0.02*
Mosquito, flea, bites	28(22.0)	11(11.3)	39(17.4)	0.04*
Knowledge of prevention of HIV/AIDS#				
Sex only with partner	61(48.0)	57(58.7)	118(52.6)	0.1
Using condom during each sexual intercourse	43(33.8)	45(46.4)	88(39.2)	0.05
Screening blood prior to transfusion	43(33.8)	52(53.6)	95(42.4)	0.00*
Sterilizing needles for injections	46(36.2)	52(53.6)	98(43.7)	0.00*
Avoiding pregnancy when having HIV/AIDS	12(9,4)	14(14.4)	26(11.6)	0.2
HIV AIDS is curable		alize sengas i	and the simplest	Properties
Yes	63(49.6)	44(45.3)	107(47.7)	0.5
No lost	46(36.2)	43(44.3)	89(39.7	itinit
DK	18(14.1)	10(10.3)	28(12.5)	on Levin

^{*}p<0.05

 $\label{eq:Table 4} \mbox{PERCEPTIONS ABOUT IDEAL AGE AT MARRIAGE, AGE AT FIRST CHILD BIRTH,} \\ \mbox{BIRTH SPACING \& FAMILY SIZE}$

	14 to 16 Yrs N=162	17 to 19 Yrs N=108	Total N=270	P Value
Preferred age of marriage				
<18 yrs	19(11.7)	10(9.25)	29(10.7)	0.6
18-20 yrs	122(75.3)	85(78.7)	207(76.6)	2000 (3
>20 yrs	21(12.9)	13(12.0)	34(12.5)	damid.
Preferred age at first child birth				
<21 yrs	66(40.7)	25(23.0)	91(33.6)	0.00*
21-25 yrs	85(52.4)	76(70.3)	161(59.6)	
>25 yrs	11(6.7)	7(6.4)	18(6.6)	
Ideal number of children			g floa Jailed	shaliMa
Led the scoreout A. A. August St. August and held	6(6.37)	4(3.7)	10(3.7)	0.01*
2 Donas Arasoltos High IN Table I public	97(59.8)	80(74.0)	177(65.5)	rabne ⁴
>2	59(36.4)	24(22.2)	83(30.7)	NOTE WITH

Table Contd.

Ideal gap between two children	A PARIAWINA	e możekiene m.n.	rielistikka (B)	
(P)(14.2) [-3(7.2) [-26(31.6) [-3.6]	8(4.9)	2(1.8)	10(3.7)	0.00*
2 5.0 (8.11)05 (3.88) [(5.41)81	57(35.1)	19(17.5)	76(28.1)	i univa
3 100 = 1 (C.CHAE (C.B)B } +-(EVI)SS	46(28.3)	47(43.5)	93(34.4)	
>3 30.0 - ((0.21)?\$ (2.5)% (5.5)%	51(31.4)	40(37.0)	91(33.7)	iologariba

^{*}p<0.05

Table 5
PREFERRED SOURCE FOR INFORMATION ON REPRODUCTIVE HEALTH ISSUES

(48.0) 37(58.2) 110(52.6) 0.1	10 to 13 Yrs N=185	14 to 16 Yrs N=162	17 to 19 Yrs N=108	Total N=455	P Value
Awareness of nearby health facility		9811	ootsaa hoxaa	ledo-gantio al	
Yes (0.62)52 (0.62)52 (0.62)52	121(65.4)	120(74.0)	83(76.8)	324(71.2)	0.06
No	51(27.5)	32(19.7)	23(21.2)	112(24.6)	
DK	13(7.0)	10(6.2)	2(1.8)	25(5.4)	ng salibiovi
Want more information on reproductive health	83(44.9)	115(70.9)	75(69.4)	273(60.0)	0.000*
Preferred source for information					407
School	33(17.8)	29(17.9)	7(6.4)	69(15.1)	0.01*
General practitioner	20(10.8)	24(14.8)	17(15.7)	61(13.4)	0.3
Special youth clinic	2(1.1)	6(3.7)	3(2.7)	11(2.4)	0.2
Youth clubs	9(4.8)	10(6.1)	13(12.0)	32(7.0)	0.05
Member of family	118(72.8)	91(56.1)	67(62.0)	276(60.6)	0.3
Others	3(1.6)	2(1.2)	1(0.9)	6(1.3)	0.8

^{*}p<0.05

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