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ORIGINAL ARTICLE

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Awareness about reproduction and adolescent changes among school girls of different socioeconomic status

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OBJECTIVE(S) : To study the influence of socioeconomic factor on source of information and level of awareness of facts of menarche and reproduction among school going adolescent girls.

METHOD(S) : A cross sectional, community based study was done among 1700 school going adolescent girls. Responses about source of information and level of awareness of adolescent physical changes and menarche and reproduction were analyzed statistically in high and upper middle socioeconomic group (Group A; n=450) and low middle socioeconomic group (Group B; n=1250).

RESULTS : Source of information on adolescent physical changes and menarche varied significantly in the two groups (P = 0.02). Majority of girls have only incomplete knowledge on these topics (P = 0.10). Major source of information was television in both the groups without any significant difference (P = 0.50) but significantly more girls had clear concept of reproduction (P < 0.05) and AIDS,hepatitis B and sexually transmitted diseases (P=0.02) in Group A.

CONCLUSION(S): Socioeconomic factor significantly influences source of information and level of awareness on menarche and reproduction among adolescent girls. Hence, adolescent health counseling should be tailored accordingly.

Key words : adolescent girls, high and middle socioeconomic status, source of information, awareness of menarche, reproduction

Introduction

One fifth of world population is between 10 and 19 years old amounting to over a billion young people 85% of whom live in developing countries [1].In recent years importance of health counseling for adolescents has been appreciated but there are no large scale community based studies to assess awareness about menarche and reproduction in Indian adolescent girls. In India problems are more difficult and complicated because of marked socioeconomic diversity.

The present study was undertaken to evaluate effect of socioeconomic factor on awareness and source of information on adolescent physical changes and reproduction among school going girls.

Methods

The present study was done among 1700 school going adolescent girls of 15-19 years age in Gorakhpur city.

A team comprising of one consultant and two junior doctors approached three girls' schools named G.R.D. public school, Carmel Girls Inter College and A.D. Inter College during a period of April 2000 to July 2002.

A questionnaire was prepared in Hindi having questions mainly on following topics –

a. Source of information and level of awareness on adolescent physical changes and menarche.

b. Source of information and awareness on facts of sex, pregnancy, AIDS, hepatitis B and family planning.

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The questionnaire was first explained to the school girls and then they were asked to fill it carefully. One thousand nine hundred and fifty girls were given the questionnaire. But only 1700 responded with replies. The reasons for noncompliance by 250 girls were involvement in other events of the school, lack of interest in the questionnaire, and being too shy to respond. To know the status of awareness in different socioeconomic groups, the girls were categorized in two groups.

Group A: 450 girls belonging to high and upper middle socioeconomic status (monthly per capita family income more than Rs.1000).

Group B : 1250 girls belonging to lower middle socioeconomic status (monthly per capita family income Rs. 500-1000).

To find out the significance of socioeconomic factor on source of information and level of awareness of menarche and reproduction, replies to different questions were analyzed statistically by applying chi square test.

Results

Mean age of girls in Group A was 16.7 years and in Group B 17 years. Table 1 shows that 73.33% girls in group A and 68.4% in Group B received information from mother or elders followed by books, television, and teachers in descending order. Sources vary significantly in the two groups (P=0.02).

In group A 63.77% and in group B 60% girls had only partial awareness about adolescent physical change and menarche. 14.44% of girls in group A and 18.4% in group B had no knowledge about these changes. The differences were not statistically significant (P=0.10) (Table 2).

Table 3 shows that for majority of girls the main source of information on sex, pregnancy and family planning was television (51.55% in group A, 55.2% in group B) followed by books and magazines (34% in Group A, 33.6% in Group B). Responses were not significantly different between the two groups.

However, 81.77% in group A and 81.6% in group B had only partial knowledge of facts of reproduction while 11.55% in group A and 15.2% in Group B had no awareness of these subjects. 6.66% of girls in group A and 3.2% in group B had clear concept of reproduction. The difference was statistically significant ($P < 0.05$) (Table 4).

Table 1. Source of information on adolescent physical changes and menarche.

Group	None		Mother / Elders		Books / TV		Teachers	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Group A (n=450)	39	8.66	330	73.33	69	15.33	12	2.66
Grup B (n=1250)	160	12.8	855	68.4	176	14.08	59	4.7
Total	199		1185		245		71	

$\chi^2 = 9.145$, df = 3, P=0.02

Table 2. Awareness of fact of adolescent physical changes and menarche.

	No awareness		Partial awareness		Good awarenss	
	Number	Percent	Number	Percent	Number	Percent
Group A (n=450)	65	14.44	287	63.77	98	21.77
Group B (n=1250)	230	18.4	750	60	270	21.6
Total	295		1037		368	

$\chi^2 = 3,7345$, df = 2, P = 0.10

Table 3. Source of information on sex , pregnancy and contraception.

Group	Television		Book / Magazine		Mother / Elders		Others	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Group A (n=450)	232	51.55	153	34	31	6.88	34	7.55
Group B (n=1250)	690	55.2	420	33.6	57	4.56	83	6.64
Total	922		573		88		117	

$\chi^2 = 4.6849$, df = 3, $P < 0.05$

Table 4. Awareness of facts on sex, pregnancy and contraception.

Group	No awareness		Clear awareness		Partial awareness	
	Number	Percent	Number	Percent	Number	Percent
Group A (n = 450)	52	11.55	30	6.66	368	81.77
Group B (n=1250)	190	15.2	40	3.2	1020	81.6
Total	242		70		1388	

$\chi^2 = 12.73$, df = 2, $P < 0.05$

Table 5. Awarenss of AIDS, hepatitis B and sexually transmitted diseases.

Group	No awareness		Clear awareness		Partial awareness	
	Number	Percent	Number	Percent	Number	Percent
Group A n=450	52	11.55	63	14	325	74.44
Group B n=1250	200	16	130	10.4	920	73.6
Total	252		193		1255	

$\chi^2 = 8.215$, df = 2, $P = 0.02$

Table 5 shows that 74.44% girls in group A and 73.6% in group B had partial knowledge of AIDS, hepatitis B and sexually transmitted diseases (STD). In group A 14% and in Group B 10.4% had clear concept of these diseases while 11.55% in group A and 16% in group B had no knowledge of these (P=0.02).

Discussion

Adolescence is a period when physical growth and maturation are accompanied by mental and psychological development. The current billion strong generation of 10-19 year old will be the largest generation in history to make transition from childhood to adulthood.

Reproductive health needs of adolescents have long been neglected but in the last 10 years importance of information on reproduction and sexuality is being increasingly emphasized. The 1994 International Conference on Population and 1995 Fourth World Conference on women held in Beijing recommended educational services for adolescents in friendly environment [2]. But no clear norms for content, approaches and personel are defined for such educational services and how these should be fulfilled in different socioeconomic and cultural environments is not clear. In depth studies are badly needed to know and fulfill the reproductive health needs of adolescents.

A three tier grid approach to improvise adolescent reproductive health care is proposed [3] –

Grid I - Identify the problem of adolescents in India.

Grid II - Identify existing facilities catering to teenage reproductive health program.

Grid III - Formulate project plan, research and training program.

The present study is an attempt to fill lacunas in Grid I. The most diverse spectrum of socioeconomic variation is found in India. In this context the observations in the present study reveal significance of socioeconomic factor on level of awareness and source of information on facts of growing up and on reproduction among Indian adolescent girls.

Our study emphasizes that major source of information for adolescent physical change and menstrual problems is mother or elder relative, followed by books, television, and teachers. Sources were significantly different in the two groups. But majority of girls in both the groups, without significant difference, have only partial or incomplete knowledge of facts on menarche and on physical changes. It is obvious that sources of information are not adequate and there is a need for further education.

Winter [4] noted that mother is an important source of information but she is often unable to meet the queries. Whisman et al [5] noted that commercial educational material is an important source of information on menstruation but does not give accurate knowledge and does not deal with girl's emotional needs and anxiety.

Drubashayani Devi and Venkata-Ramaiah [6] in a study on menstrual hygiene among rural adolescent girls observed that majority of girls were lacking in care and hygiene during menstruation. In our study majority of girls (82.95% Group A, 91.2% Group B) selfcared during menstruation but 18.5% girls in group A and 25.2% girls in group B believed that menstrual period is relatively dirty and renders the girls untouchable.

Regarding reproductive facts, the present study signifies that now a days television is the most important source of information on sexuality, pregnancy, contraception, AIDS and STD, followed by books, friends and elders in descending order without any statistically significant difference in the two groups.

Watsa [7] in a study of 4709 respondents showed that they received sex information usually from mass media and friends but it was not reliable. Teachers were ill equipped to clear their doubts on sex. Our study correlates with these findings as shown by the fact that 81.77% girls in Group A and 81.6% in Group B had vague, incomplete and confusing knowledge on topics of sex, pregnancy and contraception.

AIDS and STDs were well known to 70% respondents in Watsa's[7] study as compared to 14% girls in Group A and 10.4% in Group B in our study.

Francis et al's [8] study of 716 school girls in Delhi observed that most frequent source of information on reproductive facts was books (53.8%) followed by friends (47.3%) in contrast to our study where television was the most common source of information.

Jeejeebhoy [9] studied adolescent sexual and reproductive behaviour in India and emphasized that health sessions should be structured to meet cultural, economic, and social needs.

Certain interesting observations were made in the study which point to emotional conflict and priorities of these adolescent girls. It was noted that girls (72.22% Group A, 98.56% Group B) felt gender discrimination against females. 64.22% girls in Group A and 88.24% in Group B wished to have economically independent life. Today electronic media is the most common means of entertainment but majority of girls opted for light programs (76.7%) as compared to serious programs like news, documentaries etc (16.94%).

Conclusion

Our observations are important indicators of changing pattern and mood of the society where electronic media plays significant role and girls question gender discrimination and wish for economically independent life. These areas need further research and analysis by varying specialists, like sociologists and psychologists.

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References

1. Saipre KE. *Contribution to Obstetrics and Gynecology Volume 4.* Singapore, Pearson Professional. *1996:47.*
2. Gandhi AB. Reproductive health of adolescent girl. *J Obstet Gynecol India 1999;49:132-5.*
3. Friedman HL, Edstrum KG. An appraoch to planning health service research. *Adolescent and reproductive health publications No. 77.1983:12.*
4. Coff E, Rierdan J. Preparing girls for menstruation. recommendations from adolescent girls. *Adolescence 1995;30:795-811.*
5. Whisman L, Brede E, Segans C. Implicit messages concerning menstruation in commercial educational material prepared for young adolescent girls. *Am J Psychiatry 1975;132:815-20.*
6. Drubashayani Devi K, Venkata-Ramaiah P. A study on menstrual hygiene among rural adolescent girls. *Ind J Med Sci 1994;48:139-43.*
7. Watsa MC. *Youth Sexuality*. Mumbai (SECERT). Family Planning Association of India *1994.*
8. Francis PT, Gill IS, Chawdhary S. Knowledge, belief and attitude regarding AIDS, STDs and human sexuality among senior secondary students. *Ind J Community Med 1994;19:16-20.*
9. Jeejeebhoy SI. Adolescent sexual and reproductive behaviour. *ICRW working paper No. 3, 1996.*