

Perception regarding reproductive health among adolescents of rural Sindh, Pakistan

Anjum Shahid¹, Abdul Ghaffar Pirzada², Ashfaque Ahmed Memon³

¹Principal Research Officer, ²Medical Officer, ³Statistical Officer, Pakistan Medical Research Council, Research Centre, National Institute of Child Health, Karachi, Pakistan.

Abstract

Adolescence, the second decade of life, is a period in which an individual undergoes major physical and psychological changes. Adolescence is a period when health problems that have serious immediate consequences can occur or when problem behaviours that could have serious adverse effects on health in the future are initiated. This study examines the knowledge and perception regarding reproductive health and opinion toward reproductive health education among adolescents of rural Sindh, Pakistan. Study was conducted in 2008- 2009 on a total number of 369 adolescent males (209) and females (160) studying in colleges of Kambar Shadadkot, rural Sindh. This descriptive study using cluster sampling technique was conducted in randomly selected eight intermediate colleges of boys and girls. After informed consent and ensuring confidentiality, an anonymous quantitative questionnaire was completed to ascertain the knowledge of adolescents. Main outcome measures were adolescent's knowledge of reproductive health concepts, pregnancy and contraceptive methods and knowledge in relation to sexually transmitted diseases (STDs) and HIV/AIDS. Analysis of data revealed that a sizable proportion of adolescents had low knowledge regarding reproductive health issues and had misconception regarding reproductive physiology, STDs and condoms. Teacher was the focal source of information and 63% male and 43 % female respondents desired a need for RH education. More than half of participants had no knowledge on STDs and HIV/AIDS and its spread and a small percentage had awareness regarding contraceptive methods, about condom use and its protective coverage against STD's and pregnancy. Strong efforts are needed to augment awareness among rural adolescents and education could serve the purpose. Gender-based ethnically amenable sex education curriculum should be introduced in educational institutions.

Keywords: Adolescence, Knowledge, Reproductive, Sexual health, Pakistan.

Introduction

Adolescence is defined as a period of transition from childhood to adulthood and comprises the individuals between the ages of 10-19 years.¹ Adolescents comprise 20% of the world's total population and out of 1.2 billion adolescents worldwide, nearly 90% live in developing countries.^{2,3} The census of Pakistan quotes the current generation of 10-19 years old at 46.5 millions constituting 30% of total, probably largest in the history of Pakistan. The boys constitute 52% of adolescent population as compared to 48% girls.

Adolescent reproductive health (RH) is one of the most susceptible health issues that the world has been facing. The reproductive and sexual health needs of adolescents are different from those of adults and are still poorly understood in most of the world. It is also true that the RH needs and sexual behavior of adolescents vary with sex, marital status, class, region and cultural context.⁵ Globally, reproductive capability is taking place at an earlier age than in the past⁷ and adolescents are indulging in risk taking behaviors.⁶ Adolescence, the second decade of life, is a period in which an individual undergoes major physical and psychological changes. In adolescence, health problems that have serious immediate consequences can

Practice points

- Adolescence, the second decade of life, is a period in which an individual undergoes major physical and psychological changes.
- In adolescence, health problems that have serious immediate consequences can occur or serious adverse effects on health in the future are initiated.
- The present study demonstrated rural adolescents had low knowledge, attitude and misconceptions regarding reproductive health issues, especially STDs and HIV/AIDS.
- The findings of the present study emphasize to enhance adolescents' awareness and autonomy to enable informed decision-making to protect and improve their health and well-being, including sexual and reproductive health.
- There is an urgent need to promote adolescent sexual and reproductive health which will have far-reaching impacts and implications for young people, communities and nations.

Correspondence: Dr Anjum Shahid. PMRC, Research Centre on Child Health, 5th Floor, National Institute of Child Health, Karachi, Pakistan. E-mail: pmrc_srcch@yahoo.com.

occur or when problem behaviours that could have serious adverse effects on health in the future are initiated.⁷ Data shows that age at marriage for both young men and women is rising in almost all the countries of the world and there is an increased likelihood of premarital sexual activity, that is unsafe.^{9,10} Unintended pregnancy, maternal mortality, risk of induced abortions under unsafe conditions and contracting sexually transmitted diseases including HIV/AIDS are much higher among this segment than others.¹¹ In the United States, teen pregnancy, birth, abortion and sexually transmitted disease rates are higher than those in most other developed countries and are rising.¹² Surveys are being conducted around the globe in adolescents to ascertain their knowledge on RH issues and a recent survey of Malaysia reported lack of knowledge regarding important aspects of sexual and RH and warrants the need to strengthen sexual and RH education.¹³ While an earlier study from Pakistan reported gaps in knowledge about sexual health and misconceptions associated with them.¹⁴ Rural areas are considered to have a more restrictive socio-cultural environment regarding issues related to reproduction and sexuality.¹⁵ This study was therefore an attempt to explore the knowledge and perceptions regarding RH and opinion toward RH education among adolescents of a rural district of Sindh, Kambar Shadadkot. It includes both male and female teenagers to get a gender perspective on the subject.

Materials and Methods

A cross-sectional descriptive study using cluster sampling technique was conducted in 2008-2009 in randomly selected eight intermediate colleges of boys and girls from a rural district of Sindh, Kambar Shadadkot. The sample size of 369 was calculated at 95% confidence interval with 5% precision

and expected prevalence of 40% using computer package EPI info 6 version 6.¹⁶ A total number of 369 adolescent (17-19 years) college boys (209) and girls (160) were included in the study. After informed consent and ensuring confidentiality, an anonymous questionnaire, designed at the research centre was filled by trained researchers and all respondents were interviewed individually to ascertain their knowledge regarding contraceptive methods, STD'S and AIDS and their opinion towards RH education. Pilot tests were conducted in two colleges which were not selected for survey.

Ethical clearance was obtained from the Ethical Review Committee of the Institute and informed written consent was taken from the respondents before interview. Assurance of confidentiality was provided to the participants.

Data feeding and analysis was accomplished by using computer SPSS (Statistical Package for Social Sciences) Version 11.0. The results were given as frequency/percentage for qualitative variables. A p-value below 0.05 was considered as statistically significant.

Results

This study was conducted in 369 adolescents (17-19 years), comprising of 209 males and 160 females of 8 public sector colleges of Kambar Shadadkot, Sindh. Mean age of cohort was 18.34± 0.57 years while that of male and female respondents was 18.26±0.54 years and 18.44±0.6 years respectively. General characteristics of adolescents are presented in Figure 1. More than 70% (117) girls were from pre-medical group while 40% (84) boys were from pre-engineering group.

Figure1: General characteristics of adolescents

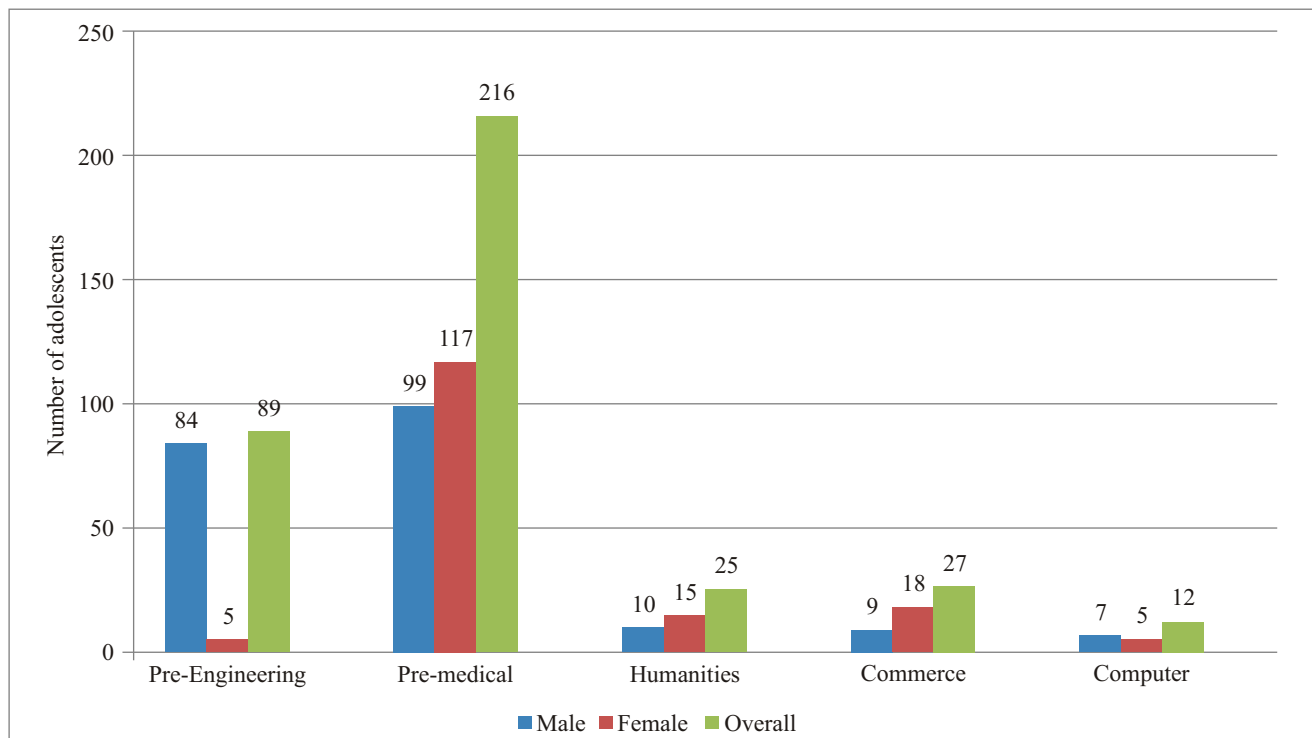


Table 1: Communication with elders

Variables	Adolescents (%)			<i>p</i> -value
	Overall (n=369)	Male (n=209)	Female (n=160)	
Relationship With elders				
Respectful	310 (84.01%)	170 (81.34%)	140 (87.50%)	0.11
Friendly	49 (13.28%)	31 (14.83%)	18 (11.25%)	0.31
Afraid	7 (1.90 %)	5 (2.40%)	2 (1.25%)	0.09
Shy	2 (0.54%)	2 (0.96%)	0	-
Uncaring	1 (0.27%)	1 (0.48%)	0	-
How do you feel when communicating with elders about RH?				
Shyness	151 (40.92%)	91(43.54%)	60 (37.50%)	0.24
Bold/outspoken	41(11.11%)	30 (14.35%)	11 (6.9%)	0.02*
Cannot talk	78 (21.14%)	64 (30.62%)	14 (8.75%)	0.001*
Others	7 (1.9%)	2 (0.96%)	5 (3.12%)	0.03*
Don't Know	92 (24.93%)	22 (10.53%)	70 (43.75%)	0.001*
Does your family allow you to make girls/boy friends?				
Yes	65 (17.62%)	26 (12.44%)	39 (24.37%)	0.001*
No	186 (50.41%)	153 (73.21%)	33 (20.63%)	
Don't know	118 (31.98%)	30 (14.35%)	88 (55%)	0.001*

*Values are significant $p < 0.05$.

Communication with elders

About 84% of students were of the opinion that their behavior was respectable with elders and 40% feel shy while communicating with elders regarding RH issues (Table 1). More girls (24%) than boys (12%) were allowed by family to converse with members of opposite gender and the difference was highly significant ($p=0.001$).

Reproductive health education/information

The teacher was the foremost source of RH information to adolescent boys (58%) and girls (36%) and they believed in improving awareness for the same (Table 2). According to 46%, <18 yrs was the right age for imparting RH education. More females than males made no rejoinder and this difference was highly significant ($p=0.001$). About 63% of male and 43% of female respondents emphasized a need for RH education and 55% of the respondents identified negative attitude of the society as the main barrier of acquiring such knowledge. Difference in opinion between the genders was highly significant ($p=0.001$).

Awareness of STD's, AIDS and Contraceptive methods

More than half of respondents had no knowledge on STD's and HIV/AIDS and its spread, and about 25% were of the opinion that AIDS can be cured (Table 3). About 40% females made no rejoinder and difference in gender opinion

was significant (0.001). Although 12% were aware of contraceptive methods but only 9% had knowledge about condom use and more boys (13%) than girls (3%) knew about condoms. That condoms are protective against STI's been recognized by 16% and 12% knew that they are effective against preventing pregnancy.

Premarital sex

Regarding premarital sex, boys (47%) had a more liberal opinion than girls (21%) and about 68% of females and 19% of males made no rejoinder on this subject which was highly significant ($p=0.001$).

Discussion

The present study presents the status of rural adolescent's knowledge and perception about RH. Data on rural adolescent RH is scarce in Pakistan as taboos surrounding discussion of sexuality is a key constraint in Pakistani culture and as a result little is known about the RH needs of young people. The rural environment is a unique and potentially challenging socio-cultural context for adolescent health and more restrictive regarding issues related to reproduction and sexuality.

Adolescents in the contemporary study do not have access to sufficient and correct information of RH issues. This lack

Table 2: Reproductive health education

Variables	Adolescents (%)			<i>p</i> -value
	Overall (n=369)	Male (n=209)	Female (n=160)	
Books	95 (25.74%)	50 (23.92%)	45 (28.12%)	0.36
Media /internet	27 (7.32%)	8 (03.83%)	19 (11.88%)	0.003*
Teacher	179 (48.51%)	121 (57.89%)	58 (36.25%)	0.001*
Parents	38 (10.3%)	20 (9.57%)	18 (11.25%)	0.596
Friends	19 (5.05%)	8 (3.83%)	11 (6.88%)	0.189
Others	11 (2.89%)	2 (0.96%)	9 (5.62%)	0.009*
In your opinion what is the right age for RH education?				
<18 Years	171 (46.34%)	126 (60.29%)	45 (28.13%)	0.259
>18 Years	30 (8.13%)	25 (11.96%)	5 (3.12%)	
Don't know	168 (45.53 %)	58 (27.75%)	110 (68.75%)	0.001*
Is there any need for RH education?				
Yes	201 (54.47%)	132 (63.16%)	69 (43.12%)	0.887
No	98 (26.56%)	65 (31.1%)	33 (20.6%)	
Don't Know	70 18.97	12 (5.74%)	58 (36.25%)	0.001*
Barrier for RH education, whose negative attitude?				
Parents	83 (22.49%)	25 (11.96%)	58 (36.25%)	0.001*
Teacher	81 (21.95%)	35 (16.75%)	46 (28.75%)	0.005*
Society	205 (55.56%)	149 (71.29%)	56 (35%)	0.001*
Do you believe in improving RH education?				
Yes	180 (48.78%)	124 (59.33%)	56 (35%)	0.024*
No	136 (36.86%)	77 (36.84%)	59 (36.88%)	
Don't Know	53 (14.36%)	8 (3.83%)	45 (28.12%)	0.001*

**Values are significant $p < 0.05$.

of knowledge concerning reproduction can be attributed to social and cultural barriers.¹⁷ It is important to promote and protect the rights of adolescents to RH information and care as RH behaviors of adolescents are directly related to their own health as future adults.^{18,19} However, the findings of the present study do not reflect this recognition. There is a great need for RH information on the risks and prevention of pregnancy, STD's and HIV/AIDS. Reproductive health education is a key strategy for promoting safe sexual behavior among teenagers²⁰ and acquiring knowledge about the dilemma and misconceptions.²⁰ More than 50% of the respondents in this study were of the need for RH education the finding coincides with an earlier study conducted in adolescent males in rural Pakistan where respondents were willing to learn more of the issue.¹⁴ As per their rejoinder, society was the main barrier in acquisition of the said

knowledge and considered <18 years as the right age for imparting RH education. A recent study demonstrated that positive well-being during adolescence predicts better perceived general health and fewer risky health behaviors during young adulthood.¹⁵ Aligned with the goals of the positive youth development perspective, promoting and nurturing positive well-being during the transition from childhood to adolescence may present a promising way to improve long-term health.

The present study demonstrated that discussion of RH issues with teachers were common in both male and female respondents. This shows that though strong family structure considered a major role in the lives of adolescents but a shift of trend was identified which advocated that parents are no longer their first point of contact.

Table 3: Knowledge of STD'S, AIDS and contraceptive methods

Variables	Adolescents (%)			p-value
	Overall (n=369)	Male (n=209)	Female (n=160)	
Have you heard about STI's / AIDS?				
Yes	90 (25.62%)	49 (23.44%)	41 (25.62%)	
No	232 (62.87%)	159 (76.08%)	73 (45.63%)	0.81
Don't know	47 (12.73%)	1 (0.48%)	46 (28.75%)	0.001*
How HIV/AIDS Spread?				
Yes	54 (14.63%)	35 (16.75%)	19 (11.88%)	
No	235 (63.69%)	171 (81.82%)	64 (40%)	0.24
Don't know	80 (21.68%)	3 (1.43%)	77 (48.12%)	0.001*
Is it possible to cure AIDS?				
Yes	90 (24.4%)	49 (23.44%)	41 (25.62%)	
No	188 (50.94%)	136 (65.07%)	52 (32.5%)	0.003*
Don't know	91 (24.66%)	24 (11.48%)	67 (41.88%)	0.001*
Do you have knowledge about contraceptives methods?				
Yes	45 (12.2%)	31 (14.8%)	14 (8.75%)	
No	220 (59.6%)	159 (76.1%)	61 (38.12%)	0.646
Don't know	104 (28.2%)	19 (9.1%)	85 (53.13%)	0.001*
Do you have knowledge about condoms?				
Yes	33 (8.94%)	28 (13.4%)	5 (3.12%)	
No	244 (66.13%)	161 (77.03%)	83 (51.88%)	0.028*
Don't know	92 (24.93%)	20 (9.57%)	72 (45%)	0.001*
Are condoms protective against STIs?				
Yes	60 (16.3%)	49 (23.44%)	11 (6.88%)	
No	210 (56.9%)	139 (66.51%)	71 (44.37%)	0.021*
Don't Know	99 (26.8%)	21 (10.05%)	78 (48.75%)	0.001*
Are condoms effective in preventing pregnancy?				
Yes	46 (12.47%)	26 (12.44%)	20 (12.5%)	
No	238 (64.49%)	163 (77.99%)	75 (46.87%)	0.115
Don't Know	85 (23.04%)	20 (9.57%)	20 (12.5%)	0.001*

**Values are significant $p < 0.05$.

Similar is the case with friends; though an earlier study reported that youths rely on each other for information on RH matters and resolve any RH problem within the peer system.¹⁴ Adolescents in this study had developed their own channels of informal information from a relatively diverse set of sources but knowledge gained cannot be accepted as appropriate and undoubtedly can be incorrect and inadequate.²¹ The present situation is similar to an earlier study conducted in Bangladesh²² but disparate to that of Iran.¹⁰

The present study also revealed that a substantial proportion of respondents had low knowledge about the STDs, HIV/AIDS and their spread, about contraceptives and their protective coverage against STDs and pregnancy. It is a matter of serious concern as more than half of respondents had no knowledge on STDs and HIV/AIDS. They had misconceptions regarding STD's and about 50% were of the view that STD's do not occur during adolescent years. Previous study conducted among the college students of

eight cities of Sindh province (Pakistan) showed that 92% of the respondents considered AIDS were the threat to the health of Pakistan.²³ This findings identified the differences of knowledge of rural and urban students which need special attention by the policy makers. A population-based study of 1,385 males aged 15-18 years in Tehran, Iran also reported that nearly all (95%) of the respondents had heard about STIs and HIV/AIDS, but misconceptions were widespread.¹⁰ Another study conducted on adolescent girls from rural Bangladesh indicated that a sizable proportion of adolescent girls had incorrect knowledge or misconceptions about the fertile period, reproduction, sexually transmitted diseases, and HIV/AIDS.²⁴

The findings of the present study highlighted the poor knowledge of contraceptive use and misconception regarding use of condoms. About one-tenth of the respondents was aware of contraceptives and had knowledge about condoms. Less than one-fifth of the respondents had knowledge that condoms were protective against STD's and effective against preventing pregnancy. The awareness was low in comparison to an earlier study among urban college students in Pakistan¹⁰ and another study conducted on rural adolescents in Bangladesh.²⁵ We also reported in another study²⁶ about knowledge, attitude and behavior about reproductive and sexual health in urban adolescents of Karachi, Pakistan and found that they were better equipped than their rural counterpart studied in the present study. Reproductive health education as part of the curriculum can provide an effective means of improving knowledge and reducing RH problems among them.

The findings of the present study emphasized the urgent need to enhance adolescents' awareness and autonomy to enable informed decision-making and reduce unsafe and unwanted sexual activity, especially in rural areas. Parents, teachers and the adult community must facilitate this decision-making through free and open communication and by creating a friendly environment that protects adolescents from abuse, and enables them to access information and services without fear.²⁷ A culturally relevant RH curricula should be introduced in the school and colleges to promote awareness regarding adolescent sexual and reproductive health.²⁸ Finally, a shared understanding of adolescent health would have to be developed by strengthening health service provision by making it adolescent friendly.²⁹

Conclusion

The findings of the present study demonstrated that a sizable proportion of rural adolescents had low knowledge, attitude and misconceptions regarding RH issues, especially STDs and HIV/AIDS. Policymakers should take appropriate and urgent actions to promote adolescent sexual and RH which will have far-reaching impacts and implications for young people, communities and nations.

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