

A CROSS-SECTIONAL STUDY FOR ASSESSING THE KNOWLEDGE AND PRACTICES OF CONTRACEPTIVE USE AMONG YOUNG ADULTS IN SINDH, PAKISTAN

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ABSTRACT

The study was conducted with objective to assess the knowledge and use of contraception among young adults in Sindh, Pakistan. The descriptive, cross-sectional study method was conducted from March to June 2010 in Hyderabad and Sakrand, Sindh, Pakistan. Non-random sampling method was used to raise the study sample from among the community and students aged 16-24 years. SPSS 13 was used for data analysis. Results of the 150 respondents, 94(62.7%) were boys and 56(37.3%) were girls. The overall mean age was 20±3.2 years (range: 16-24 years). Moreover, 66 (44%) participants were aware of natural family planning or rhythm methods, 63(42%) knew about oral contraceptives, whereas 60(40%) were aware of the female condom. Moreover, 59(39%) respondents had heard of emergency contraceptives and 13(9%) had used them. Besides, 2(22%) of the rural participants used emergency contraceptives compared to 7(78%) respondents living in urban areas. It was concluded that the overall knowledge about contraceptive methods was limited among young adults.

Keywords: Contraception, Young adults, Culture, Education, Pakistan

INTRODUCTION

Evidence suggests that the negative outcomes of early pregnancy threaten the health of people in the second decade of life more than any other age group¹⁻³. However, the use of contraception among this age group is too low to prevent teenage pregnancies¹. There are various factors that contribute to ineffective and limited use of contraception and these may include lack of knowledge and awareness of the appropriate use of contraceptives^{2,9,23}, availability and accessibility of contraceptives, financial constraints, and misconceptions about the safety of contraceptives^{4,8,21}. Factors such as perceived risk of infection and infertility associated with the use of intra-uterine devices (IUD)⁷, concerns about potential / long-term adverse effects, and cost of Emergency Contraceptives (EC) are examples of additional barriers^{15,23}. Among various contraceptive methods, consistent and correct use of condoms is considered as the most effective way to prevent unwanted pregnancies. However, low sexual pleasure, lack of knowledge about condoms and their use, stigma associated with condom use, difficulty in negotiating condom use, trust, and the price of condoms are identified as reasons affecting condom use^{5,8,11,19}.

Studies exploring the use of contraceptives among young adults in Pakistan are scarce, particularly in rural areas¹¹. Available evidence suggests that despite annual unwanted pregnancy rate of 77 per 1,000 women, the use of contraceptive is relatively low (20%) in Pakistan^{4,18}. Furthermore, the use of contraceptives is mainly prevalent among women aged

35–39 years¹⁸. However, the highest percentage (6.1%) of pregnancy was reported in 19-year-old women¹⁶. Given the fact that education improves contraceptive use¹²⁻¹⁴, the current study was planned to explore the level of knowledge and use of contraceptives among young adults.

SUBJECTS AND METHODS

This cross-sectional study was conducted in Hyderabad and Sakrand, representing respectively urban and rural areas of the province of Sindh, Pakistan, from March to June 2010. Using a non-random convenience sampling method, men and women aged 16-24 years were recruited from community centres, sports centres and academic institutions. Rural population refers to people living in rural areas as defined by the Pakistan Bureau of Statistics (PBS). It is calculated as the difference between total population and urban population. According to 1998 census, collective population of Sakrand and Hyderabad is 2 million, out of which an estimated 21% population is aged 15 to 24 years. The sample size was calculated using 95% confidence interval (CI) at 5% margin of error. Young adults with cognitive problems and those under the age of 18 years with no parental permissions were excluded.

A self-administered questionnaire was developed whose statements were derived from versions of structured, standardised and validated instruments that have been used in similar population settings in both developed and developing countries^{2,10,11}. The questionnaire aimed at exploring respondents' knowledge, attitude and practices about contraception. Respondents were expected to record their choices by ticking pre-coded responses. The questionnaire was divided into three parts. There were 11 questions in the first section in which the participants were asked if they had heard and used any of the listed modern and traditional methods of contraceptives. In the second part, eight questions were asked from the participants about their knowledge, attitude and the use of contraceptive methods. In the last part, the participants were asked 7 questions about their knowledge of emergency contraceptives. The questionnaire was developed in English and subsequently translated into Sindhi and Urdu languages. The English version of the questionnaire was subjected to content validity by experts. Translation of the questionnaire was conducted by people who were fluent in English as well as in Urdu/ Sindhi.

Ethical approval was obtained from the university's ethics committee. Informed consent was obtained from all the participants. Respondents were given a questionnaire in their preferred language and were offered private space at study settings to complete the questionnaire. SPSS 13 was used for data analysis. The data was analysed to produce descriptive statistics.

RESULTS

Of the 245 questionnaires distributed, 165(67.3%) were returned. Of them, 150(90.9%) were selected for analysis, while the remaining were rejected for being incomplete. The respondents comprised 94(62.7%) boys and 56(37.3%) girls. The overall mean age was 20±3.2 years (range: 16-24 years). Moreover, 71(47.3%) participants were aged 22-24 years, followed by 65(43.3%) in the 19-21 age group and 14(9.33%) were 16-18 years. Besides, 104(69.3%) respondents were single, 42(28%) were married and 1(0.66%) was divorced. Furthermore, 87(58%) respondents were college/university students, 10(7%) had no formal education, whereas 21(14%) had education up to primary and 32(22%) up to secondary level. In addition, 99(66%) participants were living in Hyderabad and 51(34%) in Sakrand.

Moreover, 66(44%) of the participants were aware of natural family planning or rhythm methods, 63(42%) knew about oral contraceptive – combined pill, whereas 60(40%) were

aware of the female condom. The use of contraceptive methods ranged from 17(11.3%) for natural methods to 6(4%) for long-acting reversible contraceptives (Table 1).

Table 1. Knowledge and use of Contraceptive among Study Respondents

Contraceptive Methods		Heard		Used		
		Education (%)	Urban	Rural	Urban	Rural
Natural family planning or the rhythm method	P*: U*		35 (53.1%) 17.1%: 82.9%	31 (46.9%) 19.3%: 80.7%	10(58.8%) 23.6%: 76.4%	7(41.20%) 25.6%: 74.4%
Oral contraceptives – combined pill	P*: U*		41 (63.1%) 24.6%: 75.4%	24 (36.9%) 19.8%: 80.2%	7 (70.0%) 42.9%: 57.1%	3 (30.0%) 33.3%: 66.7%
Female Condom	P*: U*		29 (46.1%) 18.6%: 82.4%	34 (53.9%) 20.6%: 79.4%	8 (66.7%) 37.7%: 62.5%	4 (33.3%) 50.0%: 50.0%
Surgical Sterilisation	P*: U*		30 (50.0%) 16.7%: 83.3%	30 (50.0%) 10%: 90%	3 (42.9%) 33.3%: 66.7%	4 (57.1%) 75.0%: 25.0%
Long-acting reversible contraception (shot/Injection)	P*: U*		41 (69.5%) 17.1%: 82.9%	18 (30.5%) 22.2%: 77.8%	3 (50.0%) 66.75: 33.3%	3 (50.0%) 0.0%: 100%
Intrauterine Devices	P*: U*		31(66.0%) 19.45: 80.6%	16(34.0%) 37.5%: 62.5%	6 (66.7%) 33.3%: 66.7%	3 (33.3%) 33.3%: 66.7%
Diaphragm, cervical cap, Cervical Shield	P*: U*		25(56.8) 24%: 76%	19(43.2%) 36.8%: 63.2%	9 (69.2%) 22.25: 77.8%	4 (30.8%) 25.0%: 75.0%
Abstinence	P*: U*		23(54.8%) 34.8%: 65.2%	19(45.2%) 31.6%: 68.4%	5 (45.5%) 20.0%: 80.0%	6 (54.5%) 16.75: 83.3%
Implant	P*: U*		21(53.8%) 23.8%: 76.2%	18(46.2%) 27.8%: 72.2%	5 (71.4%) 60.0%: 40.0%	2 (28.6%) 50.0%: 50.0%
The contraceptive patch	P*: U*		16(47.1%) 25%: 75%	18(52.9%) 26%: 74%	6 (60.0%) 50.05: 50.0%	4 (40.0%) 25.05: 75.0%
Contraceptive sponge	P*: U*		18(56.2%) 27.8%: 72.85	14(43.8%) 28.6%: 71.4%	9 (69.2%) 22.25: 77.8%	4 (30.8) 75.0%: 25.0%

* P = education up to Primary and U* = education up to University

Among various contraceptive methods, the use of condoms was reported by 43(29%) respondents. Besides, 56(37.3%) respondents learnt about the use of condom from a friend and 31(20.7%) from a health care professional. Moreover, 105(70%) respondents identified prevention of infection and 118(78.7%)family planning as reasons for condom use. Furthermore,44(30%)respondents had difficulty in negotiating condom use with their partner and 23(16%)said condoms were expensive (Table 2).

Table 2. Knowledge about condom

Condoms	Yes		No		Not sure	
	n	%	n	%	n	%
Condom are used for family planning	118	78.7	17	11.3	15	10.0
Condoms are used for prevention of infection	105	70.0	29	19.3	16	10.7
Have you ever learnt about condom use from a partner or friend?	56	37.3	74	49.3	20	13.4
It is difficult to negotiate condom use with a partner	44	29.3	48	32.0	58	38.7
Have you ever used condoms?	43	28.7	92	61.3	15	10.0
Have you ever had teaching on how to use a condom at a health centre?	31	20.7	105	70.0	14	9.3
Condoms are expensive to purchase	23	15.3	93	62.0	34	22.7
Have you ever had teaching on how to use a condom at school?	9	6.0	127	84.7	14	9.3

Moreover, 59(39%) respondents had heard of emergency contraceptives (ECs) and 13(9%) had used them. Besides, 60(40%) respondents were not sure if the use of ECs prevented pregnancy; 70(47%) about ECs should be taken within 72 hours after unprotected sex; and 83(55%) were not sure if IUDs can also be used as ECs. Furthermore, 22(37.3%) respondents from rural and 37(62.7%) from urban areas had knowledge of emergency contraception. Moreover, 2(22%) of the rural participants used EC methods compared to 7(78%) respondents living in urban areas (Table 3).

Table 3. Knowledge of Emergency Contraceptives

Emergency contraceptives	N (%)	Yes		No		Not sure	
		Urban-Rural Ratio (%)	N	%	n	%	
I have heard of emergency contraception	59 (39.3)	62.7: 37.3	51	34.0	40	26.7	
Emergency contraception can prevent pregnancy	55 (36.7)	54.5: 45.5	32	21.3	63	42.0	
Contraceptive pills can be used as emergency contraception	54 (36.0)	51.9: 48.1	36	24.0	60	40.0	
Emergency contraception should be taken within 72 hours after unprotected sex	46 (30.7)	46.7: 54.3	32	21.3	72	48.0	
Emergency contraception should not be used regularly for contraception	32 (21.3)	53.1: 46.9	37	24.7	81	54.0	
The intra-uterine device (IUD) can't be used as emergency contraception	26 (17.4)	73.1: 26.9	32	21.3	92	61.3	
I have used emergency contraception	9 (6.0)	77.8: 22.2	101	67.3	40	26.7	

DISCUSSION

Some studies suggest higher rate of unwanted pregnancies and low use of contraceptives among young adults in Pakistan^{4,11,18}. The findings of the current study suggest that overall

knowledge and use of contraceptives among young Pakistani adults is limited, though the respondents' level of knowledge was better than the use of contraceptive methods. The result confirms the preliminary report of Pakistan's Demographic and Health Survey (DHS) 2012-13 that suggested a low contraceptive use (less than 10% of any modern and tradition contraceptive method) among young (15–19 years) people¹⁸. However, unlike our study, these surveys, for example DHS 2007, reported very high level of knowledge of contraceptive methods among young adults in Pakistan¹⁷. This could be due to difference of the study population as these surveys only involved ever-married women¹⁶⁻¹⁸. Findings of that survey reported that 87.5% to 96% of the women who were 15–24 years old had heard of at least one contraception method¹⁷. In contrast, the present study suggests that just over one-third of young adults had knowledge of any contraceptive method and their low knowledge about contraception was the main reason for low contraceptive use. In addition, DHS report of 2012-13 confirms the findings of the current study that knowledge and use of contraceptive methods were higher among young adults living in urban areas (44.8% vs. 30.7 in rural) and has higher educational attachment¹⁸. For example, the use of any modern method of contraceptives among ever-married women with high schooling and no education in DHS 2012-13 was documented as 43.9% and 30.2%, respectively. The results of this study are consistent with DHS report 2012-13 that the knowledge and use of any contraceptive methods were positively associated with the level of education and urban residence. About more than three-fourths of the participants who had education up to college or university level were more aware of contraceptive methods than those who had schooling up to primary. For example, about 81% participants with higher education from rural and urban areas were aware of natural family planning methods compared to 18% participant who had education up to primary. Of those who used natural family planning methods, 10 lived in urban and 7 in rural areas.

Literature suggests that limited knowledge is the main reason of low contraceptive use, which ultimately attributes to unwanted pregnancies^{3,11,14}. The results of this study suggest that young adults have good knowledge about condoms as an effective method for birth control and preventing sexually transmitted infections (STIs). For example, the participants in this study knew that condoms are used for family planning (78.7%) and prevention of infection (70%). The descriptive analysis about condom use and knowledge show a consistency with the findings of some other studies conducted in Pakistan, India, Korea and Turkey^{2,4,10,14}. The findings also confirm that young adults, despite having significant knowledge about the benefits of using condoms, are still struggling with practical aspects of condom usage. Therefore, in order to change young adults' behaviour to reduce their vulnerability to STIs and to control unwanted pregnancy, the gap between knowledge and practice needs to be bridged^{1,7,14}. Nevertheless, the findings underline the need to conduct more studies to explore practical aspects of negotiating condom use and the variation in knowledge and benefits of condom use between young male and female population. The findings of this study show that young adults have insufficient knowledge and skills to negotiate condom use with their partners. For example, about one-third of the participants reported difficulty in negotiating condom use with their partners. Only school-led sex and relationship education has proven to be effective in developing skills to negotiate sex and encourage measures to control pregnancies in other countries^{5,12,19}. However, there is no teaching on sex and contraceptive method in educational institutes of our society in Pakistan. For example, about 85% of the participants had no teaching on contraceptive methods in school. Sex education has remained controversial issue in Pakistan because the interpretations of cultural and religious norms in the society assume that sex education increases early sexual debut, premarital relationship and multiple partners^{4,6,11}. However many studies has proven that sex education in school prepare young adults to make informed decisions about their sexual life, and prevents sexual

disease, teenage pregnancies and teenage depression^{12-14,19}. Therefore, introduction of carefully tailored sex education in schools could be helpful in Pakistan.

Some studies have shown that the main sources of information about contraceptive knowledge and use have been television (TV), the Internet and newspapers^{10,24}. In contrast, the findings of this study show that the main source of information about condom use has been a friend (37.3%), and that about 70% participants mentioned receiving no information about contraceptive use in health care centres. It is acknowledged that in developed countries where sex and relationship education is common, the benefits of peer-led sex information and interventions are not as evident as their popularity¹². Friends as the main and sometimes the only source of information about contraception can leave young adults with confusions and mixed messages. On the other hand, sexual health information through unregulated sources like TV channels and the Internet have been reported to expose young adults to pornography and unhealthy sexual expectations¹⁴.

The wide variations in the findings of this study about the knowledge and use of EC among young adults confirm that the untoward attitude acts as a major barrier to the use of EC. Limited knowledge (39%) and reluctance to the use (6.0%) of EC coupled with unavailability of basic healthcare facilities is an evidence of the growing number of teenage abortions in Pakistan⁶.

The current study has a few methodological limitations, therefore, its findings should be interpreted with caution. Since the study respondents were recruited using non-random sampling method from academic institutions, and the majority had higher secondary education level, the findings can not be generalised. The quantitative nature of the questionnaire might have prevented respondents from sharing their views that might have been different from the statements and options available in the questionnaire. There are always doubts about the honesty of the respondents' responses when self-administered questionnaires are used. Inclination of socially acceptable responses might be possible due to the sensitive nature of the topic.

CONCLUSION

The overall knowledge about contraceptive methods was limited among young adults. There is a need for the introduction of sex and relationship education programme to improve young adults' knowledge about contraception and unwanted pregnancies, and to assist young adults make informed decisions about their sexual health. Only comprehensive sex education programmes are known to have significant association with reducing the risk of unwanted teenage pregnancies and prevention of STI. Culturally appropriate sex and relationship education should be tailored to the special needs of young adults to maximise the understanding of STI, the importance of healthy relationships and the use of contraception in Pakistan. More robust qualitative studies should be conducted to explore the views of young adults about contraceptive use in Pakistan.

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