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PERCEPTION ABOUT POPULATION AND SEX EDUCATION AMONG COLLEGE STUDENTS OF NAGPUR, MAHARASHTRA

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ABSTRACT

A cross-sectional study was conducted in 7 junior colleges of Nagpur district, Maharashtra, India. A total of 410 students were enrolled in the study and given a specially designed structured self-administered pre-tested questionnaire. Students were invited to ask any queries on the topic. Majority (44.14%) of the students were 18 years old. Most of the students (52.68%) belonged to the Social class III. 74.87 per cent of the students knew that China is the most populous country in the world. 58.78 per cent of the students did not know the ideal spacing between two children. An overwhelming number of students (77.31%) desired only two children. Results are encouraging in some areas while disappointing in some others. Small-family norm and preference for the female child are slowly gaining acceptance.

Key Words: Population, Sex education, Knowledge, Child spacing, Gender preference, Secondary sexual characters.

India crossed the 1 billion mark in population on 11th May 2000 contributing to 16 per cent of the world population. However, the land area of India as compared to the rest of the world is only 2.4 per cent. India will overtake China to become the most populous country by 2045. What is more disturbing that besides the population growth, the sex-ratio (number of females per 1000 males) is also declining in India; more in some parts and lesser in others. Kerala is the sole state in the country which has a sex-ratio favourable to females. There are many factors which have contributed to this scenario. It is a well known fact that age of marriage of girls is low in India. The educational status of females is also not at par the males[1]. There is relatively low decision-making capacity vested with them as well[2]. There is unfavourable attitude among people about family planning measures and the implementation of related programmes. Low or absent of knowledge regarding these crucial issues, when it is needed, most exposes the teens and the youth to unwarranted and accidental problems like teenage pregnancy and its associated physical and psychological complications[3-5]. Considering all this prevalent facts, this study was undertaken to understand the loopholes in the knowledge of the target group and to simultaneously educate them on the same.

OBJECTIVES

The study was undertaken with the following objectives:

i. to assess the knowledge of college students about population and teenage

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pregnancy;
ii. to study their perception about sex education;
iii. to impart health education concerning the above issues; and
iv. to recommend policies based on the study findings.

MATERIALS AND METHOD

The cross-sectional study was carried out in 7 junior colleges of Nagpur district, Maharashtra, India. A prior appointment with the concerned heads of all the institutes was taken and they were briefed about the objectives of the study. A total of 410 students were enrolled in the study and given a specially designed structured self-administered pre-tested questionnaire. The questionnaire consisted of a total 11 questions with sections of general information of the students followed by facts about population, knowledge about sex education and teenage pregnancy and related issues. Lastly, students were invited to ask any queries on the topic.

FINDINGS

Findings in Table 1 show that majority of the students were 18 years old (44.14%) closely followed by 17 years olds (41.70%). Since the survey was conducted in schools and colleges in rural areas where most of the population belongs to the Social Class III. Hence, it was found that 52.68 per cent of the students belonged to the Social Class III according to Prasad`s Scale (Table 2).

TABLE 1
DISTRIBUTION OF COLLEGE STUDENTS BY AGE AND SEX

Age	Males (%)	Females (%)	Total (%)
16	3 (1.74)	5 (2.10)	8 (1.95)
17	66 (38.37)	105 (44.11)	171 (41.70)
18	72 (41.86)	109 (45.79)	181 (44.14)
19	16 (9.30)	13 (5.46)	29 (7.07)
20	5 (2.90)	6 (2.52)	21 (5.12)
Total	172 (100.00)	238 (100.00)	410 (100.00)

TABLE 2
DISTRIBUTION OF COLLEGE STUDENTS BY THEIR SOCIO-ECONOMIC STATUS

Social Class	Socio-economic Status*	No.	%
I	>2430	8	1.95
II	1215 – 2429	10	2.92
III	729 – 1214	216	52.68
IV	364 – 728	116	28.29
V	< 364	60	14.63

*According to Prasad`s Scale.

The study revealed only a very few students (23.41%) could state the correct population of India while a majority of them (57.07%) reported it incorrectly. 74.87 per cent of the respondents knew that China is the most populous country in the world. Surprisingly, 23.90 per cent of the students still think that every woman must have at least a male child whereas 6.09 per cent of them were not sure of it. The knowledge about ideal child spacing was found lacking among the students with 58.78 per cent not knowing the meaning of spacing between two children. An overwhelming 77.31 per cent of the students desired only two children and a minority (16.34%) number of students wanted more than two (Table 3).

TABLE 3
AWARENESS AND PERCEPTION ABOUT POPULATION ISSUES

Parameter	Correct Response (%)	Incorrect Response (%)	Don't Know (%)
Population of India	96(23.41)	234(57.07)	80(19.51)
Most populous country	307(74.87)	96(23.41)	7(1.70)
Should every woman have one male child	287(70.00)	98(23.90)	25(6.09)
Ideal child spacing	96(23.41)	73(17.80)	241(58.78)
Desired number of children	1	2	More than 2
	26(6.34)	317(77.31)	67(16.34)

Data in Table 4 show that knowledge about secondary sexual characters was found to be overall satisfactory with 81.46 per cent, 54.14 per cent and 69.75 per cent of the respondents correctly stating that breast development, change in voice and axillary and pubic hair growth respectively are signs of secondary sexual characters. Similarly, almost everyone correctly stated that testis and ovary are the reproductive organs of males and females respectively while kidney and liver are not. Knowledge about sexually transmitted diseases was not adequate with mixed responses about the signs and symptoms of the disease. Regarding knowledge about HIV, 74.63 per cent of them correctly stated that fever as one of the symptoms whereas 55.12 per cent of the students thought vomiting was also a symptom of the disease. Regarding syphilis, 80.00 per cent and 72.19 per cent stated correctly that discharge and ulcer were the signs of the disease respectively. Almost half of them knew the correct phase of fertility in the menstrual cycle whereas about a quarter said the first 9 days and another quarter stated that the last 10 days are fertile. Television was the main mode of knowledge for 63.90 per cent of the students.

TABLE 4
KNOWLEDGE ABOUT SEX EDUCATION

Sr. No.		Yes (%)	No (%)
Knowledge about secondary sexual characters			
1	Height increases	126 (30.73)	284 (69.26)
2	Breast development	334 (81.46)	76 (18.53)
3	Graying of hair	84 (20.48)	326 (79.52)
4	Change in voice	222 (54.14)	188 (45.86)

5	Axillary and pubic hair	286 (69.75)	124 (30.25)
Knowledge about human reproductive organs			
1	Kidney	22 (5.36)	388 (94.64)
2	Testis	364 (88.78)	46 (11.22)
3	Ovary	302 (73.65)	108 (26.35)
4	Liver	146 (35.60)	264 (64.40)
Knowledge about HIV			
1	Weight loss	238 (58.04)	172 (41.96)
2	Diarrhoea	282 (68.78)	128 (31.22)
3	Fever	306 (74.63)	104 (25.37)
4	Vomiting	226 (55.12)	184 (44.88)
Knowledge about Syphilis			
1	Discharge	328 (80.00)	82 (20.00)
2	Ulcer	296 (72.19)	114 (27.81)
3	Pain	306 (74.63)	104 (25.37)
4	Headache	109 (26.58)	301 (73.42)
Which is the fertile phase of Menstrual Cycle			
	1-9 days	10-18 days	19- 28 days
	120 (29.26)	195 (47.56)	95 (23.17)
Source of information			
	TV	Print	Group talk
	262 (63.90)	101 (24.63)	47 (11.46)

With regard to teenage pregnancy, 50.24 per cent of the students informed that it does not pose a risk to the mother and 35.36 per cent stated that it doesn't pose a risk to the baby. Majority (68.29%) of them stated that they would like to delay the first pregnancy. Their knowledge about contraceptives was very limited and orthodoxy. 50.48 per cent of them did not know that barrier contraceptives prevent STD and 90.73 per cent of the respondents were unaware of contraceptive vending machine. 68.29 per cent of the students said that contraceptives must not be provided in the college campus. 75.60 per cent and 79.02 per cent of the respondents could correctly state the right ages for marriage for boys and girls respectively (Table 5).

TABLE 5
KNOWLEDGE ABOUT TEENAGE PREGNANCY AND RELATED ISSUES

Sl. No.	Parameter	Yes (%)	No (%)	Don't know (%)
Teenage pregnancy can lead to				
1	Risk to mother	180 (43.90)	206 (50.24)	24 (5.85)
2	Risk to baby	254 (61.95)	145 (35.36)	11 (2.68)
First pregnancy				
	Is delaying the first pregnancy desirable?	280 (68.29)	96 (23.41)	34 (8.29)

Knowledge about contraceptives				
1	Does barrier contraceptive prevent STDs?	116 (28.29)	87 (21.21)	207 (50.48)
2	Should contraceptives be provided in college?	122 (29.75)	280 (68.29)	8 (1.95)
3	Awareness about contraceptive vending machines	38 (9.26)	372 (90.73)	00 (00.00)
Teenage is which age group				
		5-12 years	13-19 years	Don't know
		22 (5.36)	382 (93.17)	6 (1.46)
Desirable age of marriage				
1	For boys	19	20	21
		44 (10.73)	66 (16.09)	310 (75.60)
2	For girls	16	18	20
		22 (5.36)	324 (79.02)	64 (15.60)
Source of information				
		TV	Print	Group talk
		280 (68.29)	110 (26.82)	20(4.87)

DISCUSSION

Females comprised 58.04 per cent of the study population. This is because some of the colleges surveyed were girls' colleges or colleges where co-education was there. 216 (52.68%) respondents belonged to the lower middle class. This is an expected finding as the studied colleges were mostly in the rural areas. 57.07 per cent of the students could not state the correct population of India with reasonable precision while 19.5 per cent of the students didn't know the answer. Most of the students (75%), however, knew that China is the world leader in population. One satisfactory finding is that though the respondents were living in rural areas adjacent to Nagpur, an overwhelming majority (70%) of them expressed that it is not imperative to have at least one male child. This finding is in contrast to many studies which demonstrated that students show more liking towards having at least one male child[6-8].

The aspect that is less popularized amongst the masses regarding population is probably the ideal spacing between children and it reflects in the knowledge of the students as 58.78 per cent of the students said that they didn't know the ideal spacing and 17.80 per cent of the students gave incorrect answers. Only 67 students (16.34%) wanted more than two children. This finding reflects that the population awareness and family welfare programmes have finally almost succeeded in selling the idea to the people that a two-child norm is healthy and in favour of a good family life[9,10]. Development of breast, axillary and pubic hair, and change in voice were rightly attributed as secondary sexual characters with 81.46 per cent, 69.75 per cent and 54.14 per cent replied in affirmative respectively. Similarly, 89 per cent and 7.65 per cent of the respondents correctly informed that testis and ovary were as the reproductive organs of male and

female respectively. The high accuracy amongst the students regarding the secondary sexual organs may be due to the fact that this aspect is covered in the school and college curricula in India. This is a good thing as it prevents the unnecessary anxiety and apprehension regarding the physiological changes taking place in the body of adolescents during puberty[11-13]. As far as their knowledge about HIV was concerned, majority (74.63%) of the students knew that fever was a symptom of the disease while 58.04 per cent of them also recognized weight loss and 68.78 per cent recognized diarrhoea as a symptom of the disease. However, many students thought that vomiting was also a symptom of the disease. This indicates that though people are gaining knowledge about the disease through various means, the symptomatology of the disease is not known to them at large[14]. 80 per cent of the students said that discharge is present in syphilis while 296 (72.19%) said that an ulcer is also present. However, some students felt that headache was also a symptom of the disease. The students were pretty much divided in opinion about the fertile phase of the menstrual cycle with only 47.56 per cent of them replying correctly and 29.26 per cent responded the first nine days and 23.17 per cent stated that the last 10 days were the days when conception could take place.

When the students were confronted with the questions on teenage pregnancy and related issues, the results were dismal. Only 43.90 per cent of the students said that it could lead to risk to the mother while 61.95 per cent said that a teenage pregnancy can harm the baby. Only 68.29 per cent of the students thought that delaying the first pregnancy is advisable. Overall knowledge about contraceptives amongst students was found to be low which is similar to the findings of another study[15]. Almost half of the students didn't know that barrier contraceptives prevent STDs. 68 per cent of the students said that contraceptives must not be provided in the college campus. This reflects the conservative attitude of the students in the Indian scenario and their inhibitions on this issue. Only 38 (9.26%) students were aware of the contraceptive vending machines installed at various places. 75.60 per cent and 79.02 per cent of the respondents correctly knew the right ages of marriage for boys and girls respectively.

CONCLUSION AND RECOMMENDATIONS

Low awareness about ideal child spacing is a matter of concern in the study population. The study showed multiple lacunae in the knowledge of college students especially regarding teenage pregnancy, contraceptives and symptoms of HIV. It is satisfying to notice that most of the students did not show any male-child preference. Health education was successfully imparted to the study population. From the study, the following recommendations emerge:

i. Sex and family life education must be openly discussed in schools;
ii. Teachers must be trained in method and content of sex and population education;
iii. Topics covering sex and population education must be included in the school syllabi and textbooks;
iv. Girls and boys in the reproductive age group must be educated in fertility control methods; and
v. Mass media must be used more extensively, especially the television, to propagate and percolate this knowledge to the grassroots.

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