Research Article

Knowledge and practice regarding contraception and population control among higher secondary school students in Ahmedabad

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Abstract

Background: In India, adolescent pregnancies are very common because of early marriages, lack of knowledge of contraception, and increase in sexual activity among adolescents, together leading to early child bearing in the absence of adequate and effective information and education on planning and spacing children.

Objectives: Comparative measurement of knowledge regarding contraception and population control, and to determine the need of inclusion of sex education in curriculum.

Materials and Methods: Study was carried out in randomly selected four schools. Two were of central board (private) and two of state board (government) of Ahmedabad, India. A total of 530 apparently healthy students, 265 from each of the two school types aged between 14 and 16 years were recruited for the study. A descriptive study, using a pretested, self-administered questionnaire, was carried out to assess the knowledge and practice about contraception and population control.

Result: Majority of the subjects, 205 (77.35%) of private and 199 (75.04%) of government school, stated that uncontrolled population growth has adverse effects. Only 60% private and 52.83% government school students knew the correct legal age of marriage ($p < 0.05$). All the respondents were unanimous in their desire for a gap between the first and the second child, but private school students, significantly more (84.90%) than the government school students (71.69%), preferred a gap of more than 2 years between the children ($p < 0.05$). A significantly higher proportion of central board private school students (90.94%) than state board government school students (72.75%) knew about condoms and contraceptive pills ($p < 0.05$).

Conclusion: Students showed mixed performance regarding knowledge and practice of contraception and population control. There are gaps in knowledge that need to be addressed by including population control and sex education in the school curriculum. Government school students are far behind regarding knowledge of contraception and population control as compared to central board private school students.

KEY WORDS: contraception, population control, knowledge, practice

Introduction

Uncontrolled population explosion is single greatest threat to our country's economic, social, and political development.

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India was the first country to launch a national family planning control program with the aim to reduce the birth rate to stabilize population.[1] Spacing methods not only decrease fertility but also improve the health of mother by delaying the next child.[2] Concern about adolescent fertility arises from its health implications for both the mother and the child, and its demographic and social implications in societies with rapid population growth. In India also, there is evidence from studies among senior secondary school students that adolescents are increasingly becoming sexually active. This warrants an investigation into the knowledge and attitude of this age group regarding fertility control and contraception. Total unmet need for family planning is 8.0% in Gujarat and 12.8% in India. Women using any modern contraceptive method are 56.5% in

Gujarat and 48.5% in India.[3] The education and motivation of the adolescents will go a long way in influencing their reproductive attitudes and behavior, which in turn is likely to have an important impact on overall reproductive health, and demographic and social outcomes.

Premature sexual intercourse results in high incidence and prevalence of adolescent pregnancy and abortion and also increases the risk of sexually transmitted infections and, as such, adolescent pregnancy needs careful and proper monitoring to ensure a safe outcome.[4] Pregnancy still poses a major challenge to the reproductive health of young adults in developing countries. There is need to improve on their knowledge and use of contraceptives.[5] The gaps in knowledge of adolescents need to be addressed by developing and following suitable educational content. This study was carried out with the aim of a comparative measurement of knowledge regarding contraception and population control, and also to determine the need of inclusion of sex education in curriculum.

Materials and Methods

This was a cross-sectional study conducted in Ahmedabad, India. We randomly selected four schools, two each of "central board (private)" and "state board (government)" of Ahmedabad. A total 530 students, 265 from each school type, were included in the study. Thorough physical and mental examination was done before commencing the study to avoid bias. Prior consent from school principal, students, and from their parents was taken. The study involved exploring the knowledge and practice regarding contraception and population control among 11th and 12th standard mid-adolescent (14–16 years) students. Mid-adolescence is the tender age when most of the boys and girls acquire knowledge regarding sex and contraception. Various physiological changes occur in body due to puberty, which attracts them for sex and makes them prone to develop high risk behavior. Thus, it is desirable for them and country to have correct knowledge and practice regarding contraception and population control. All the students were assembled in a large hall of their respected school and provided with a participant information sheet that explained the purpose of the study and then returned to their respective classrooms. Each consenting participant was then requested to sign the consent form. The students were adequately briefed on the content of the questionnaires before distribution. This was done to ensure a good data input. Each question was read out clearly in the class and any doubt in student's mind was cleared before commencing the study. Vernacular language was also used whenever necessary. In each of the schools, the questionnaires were administered immediately after school and each participant was required to complete the form in their classroom. The mean time taken to answer the questionnaire was about 50 min. Confidentiality was ensured using an anonymous questionnaire and requesting each participant to sit alone to avoid influencing others. Completed forms were collected by the principal investigator and the research assistants.

Results

The background characteristics (age, number of siblings, birth order, and family size) showed that the participants were comparable across schools. Mean age of the students was 15.7 ± 0.2 years. Regarding education, fathers of central board school students were more educated (162 had postgraduate degree, 95 had undergraduate degree, and 8 studied till 12th standard) than those of state board school students (135 studied till 12th standard only, 60 were undergraduate, and 70 had postgraduate degree). Most of mothers of both the type of school students were housewives.

Table 1 gives the insight of the student's knowledge and thoughts regarding contraception and population control. Majority of the subjects, 205 (77.35%) of private school and 199 (75.04%) of government school students, stated that uncontrolled population growth has adverse effects. The most commonly mentioned consequence by students of both schools was lack of jobs or employment facilities, followed by inflation and food storage. Knowledge was poor on other aspects such as lack of clean/potable water, increase in crime rate, shortage of electricity, poor sanitation, and spread of infectious diseases.

Only 60% private and 52.83% government school students knew the correct legal age of marriage ($p < 0.05$). All the respondents were unanimous in their desire for a gap between the first and the second child, but private school students significantly more (84.90%) than government school students (71.69%) preferred a gap of more than 2 years between the children ($p < 0.05$). A significantly higher proportion of central board private school students (90.94%) than state board government school students (72.45%) knew about condoms and contraceptive pills ($p < 0.05$). Many of the students preferred one child, private school students 230 (86.79%) and government school students 199 (75.09%). Difference in the response between the two types of school students was statistically significant.

Level of contraceptive knowledge is given in Table 2. It suggests that 241 of 265 students in private schools have some kind of knowledge of contraception as compared to 192 government school students.

Friends were the most prevalent source (39.41% in private and 46.35% in government school students) of information

Table 1: Comparative analysis of contraception and population control

Question	Private school students (of 265)	Government school students (of 265)
Correct legal age of marriage	159 (60%)	140(52.83%)
Desire for one child	230 (86.79%)	199 (75.09%)
Knowledge of condoms and contraceptive pills	241 (90.94%)	192 (72.45%)
Gap between the first and the second child >2 years	225 (84.90%)	190 (71.69%)

Table 2: Level of knowledge of contraception

Knowledge of contraception	Private school students (of 265)	Government school students (of 265)
No knowledge	24 (9.05%)	73 (25.54%)
Heard with good definition	142 (58.92%)	88 (45.83%)
Heard with wrong definition	99 (41.07%)	104 (54.16%)
No response	0	0
Total	265	265

regarding contraception. Other important sources for private school students were parents (27.38%), the Internet (20.74%), and teachers (8.29%). For government school students also parents (29.68%) were the second most frequent source, rest being less frequent [Table 3].

We also observed that more private (80.7%) than government school students (60.5%) indicated the hospital as a source (p = 0.005) for procurement of contraceptives, whereas more government (64.7%) than private school students (59.3%) mentioned the chemists shop ($p = 0.0001$) as a source for procurement of contraceptives. Only 44.7% private school and 17.5% government school students knew the doctors as a source of contraceptives ($p < 0.05$)

Discussion

Many studies have been conducted all over the world to study the knowledge, attitude, and practice of contraception in adolescent and young adults. A study conducted among 191 senior high school students (15–17 years) in north Gondar in 1995 by Fantahun *et al*.[6] showed the level of knowledge of contraception to be 75%. In a related study carried out by Araoye *et al*.[7] involving 971 male and female students aged 18–24 years attending a tertiary institution in Nigeria showed that 97.7% male and 98.4% female students knew at least one method of contraception. In India, two such studies have been carried out in Delhi and Ludhiana in the past. Aggarwal *et al*.[8] in Delhi conducted the survey in 500 undergraduate students of the medical colleges of Delhi and reported the knowledge regarding contraception to be 83.5%, which was comparable to the study conducted in Ludhiana by Benjamin *et al*.[9]

Table 3: Source of information about contraception

Source of information about contraception	Private school students (of 241)	Government school students (of 192)
Parents	66 (27.38%)	57 (29.68%)
Friends	95 (39.41%)	89 (46.35%)
Teachers	20 (8.29%)	11 (4.56%)
Internet	50 (20.74%)	30 (15.62%)
None of the above		5 (2.60%)

among 527 senior secondary school children where 87% students were aware of contraception. In our study, we found a significantly higher proportion of central board private school students (90.94%) than state board government school students (72.45%) knew about condoms and contraceptive pills ($p < 0.05$). Although many have knowledge regarding contraception, only 58% of private school and 45% of government school students heard it with perfect definition. Thus, these gaps in knowledge need to be bridged and warrant an urgent need of providing sexual education to students, especially in government schools.

As with previous other studies,[10–12] the most common source of information about contraception was friends and rarely health institution and family planning clinics despite these are dedicated specifically to such duties. Information obtained from friends about the use and practice of contraception is often misleading as they contain a lot of misinformation, distortion, falsehood, and misconceptions, and often times are self-centered.[11,13]

Surprisingly, we found very less number of students could point out exact legal age of marriage. Only 60% private and approximately 52% government school students knew it correctly. This kind of lack of knowledge is alarming to policy makers of health and family welfare as well as education department. In terms of knowledge and practice, government school students were lacking behind in almost all the aspects, so they are the prime focused group.

Conclusion

Students showed mixed performance regarding knowledge and practice of contraception and population control. There are big gaps in knowledge that need to be bridged by including population control and sex education in the school curriculum. Government school students remained far behind regarding knowledge of contraception and population control as compared to central board private school students.

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