

Evaluation of Knowledge, Awareness and Perception of Individuals towards Contraceptives

Saurabh Patil¹, Ruksar Malik², Shahabaj Mujawar³, Reshma Turbhekar⁴, Shailaja Girishankar⁵

PG. Student, Department of Microbiology, K. J.S.S.C., Vidyavihar, Mumbai, Maharashtra, India^{1,2,3}

Asst. Professor, Department of Microbiology, K. J.S.S.C, Vidyavihar, Mumbai, Maharashtra, India⁴

H.O.D., Department of Microbiology, K. J.S.S.C, Vidyavihar, Mumbai, Maharashtra, India⁵

ABSTRACT: The aim of the study was to evaluate the level of awareness on proper usage of contraceptives amongst high-risk age group of 16-26 years which is not exposed to the information about contraception through right channels, leading to unwanted pregnancies and Sexually Transmitted Diseases. Also spreading awareness on recent developments in the field of contraception was done in order to inform the general public in some parts of Mumbai. It was found that subjects had a narrow and ignorant selection approach towards contraceptives. A questionnaire was prepared and the responses were compiled to generate statistical data in form of percentage and graphs. The survey found that subjects rely more on Health care professional and electronic media while having moderate knowledge on side-effects and Government initiatives. The awareness on newer forms of contraceptives was low. Authors suggest more active government involvement on this sensitive topic which may increase the prevalence of contraceptive usage.

KEYWORDS: Contraceptives, Young adults, Awareness, Sexually Transmitted Diseases, Current trends.

I. INTRODUCTION

Contraceptives are any techniques, drugs or devices that prevent conceiving or pregnancies. The previous contraceptives have a low efficiency when compared with novel forms and especially when it comes to the vulnerable age group (16-26 years old), the advent of such newer contraceptive methods are a boon. There are various ways in which contraceptives can be classified into viz. barrier techniques, surgical methods, drugs. The various forms of novel contraceptives are Intra-Uterine Device, Implants, Diaphragm with spermicides and permanent sterilization (**Dorland's Medical Dictionary for Health Consumers, 2007**).

There has been a rapid increase in the population too in India and hence comes the question of Birth Spacing. According to the **World Health Organization 2016** census, the population of India in year 2001 was 1.02 billion, in 2011 it was 1.21 billion and currently in year 2016 it is 1.33 billion (**Department of Economics and Social Affairs, Population Division; World Population Prospects: The 2015 Revision**). The growth has been exponential hence indicating the unawareness of the general public with respect to the usage of contraceptives. The current problems faced due to lack of information are spread of STD's like Syphilis, Gonorrhoea, Herpes, Chlamydia, etc. According to the **Centers for Disease Control and Prevention 2011** report, Gonorrhoea rate in India is higher than the US rate i.e. 116.6 cases/1 lakh person (India) as compared to 104.2 cases/1 lakh person (US). Same was observed in case of Syphilis i.e. 4.5 cases/1 lakh person (India) as compared to 2.5-2.7 cases/1 lakh person (US). The current problems faced in the society are related to social stigma, mental depression due to unwanted pregnancies and unsafe sexual intercourse. Also a major problem in India is the abortion rates that have gone up in recent years by 144% (in Mumbai alone) and also the suicides due to consequences of unsafe coitus. Also teenage abortions have increased by 67% which is an alarming rise in the rate and hence primary objective of the current study was to evaluate and spread awareness on contraception amongst subjects of age group 16-26 years old (**Brihanmumbai Municipal Corporation, May 2016**).

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In the current study the primarily targeted age group was early puberty to adulthood stage i.e. 16-26 years of age and the sole reason to justify this selection criterion, was the percentage of STD's caused in this certain age group as observed in some of the previous studies i.e. 50% of STDs are caused in this age group(**Centers for Disease Control and Prevention, August 2016**).

II. RELATED WORK

There has been a lot of work and surveys related to the awareness on contraception and their usage in proper manner around the world and in India. In a survey conducted amongst the students of Mersin University, Turkey; the attitude, outlook, knowledge, perception on contraceptives was determined. The results of the survey indicated that males have lesser knowledge when compared to their female counterparts and hence need of such awareness initiatives and surveys[13]. In another study which was conducted online at the Korean University, evaluation of awareness on Emergency Contraceptives and other methods like condoms, withdrawal, etc. was carried out. The study concluded Emergency Contraceptives are important even when using condoms or withdrawal techniques and must be used only which are prescribed by three doctors[14]. In a survey conducted at Muhimbili and Dar es salaam Universities in Tanzania, the objective was to evaluate awareness on contraception, active sexual life, aborting illegally and sexual behavior amongst college students. All of them were aware about contraceptives but not all forms were known (condoms-24.3% and pills-16.8% being the most known). The most relied on source for such information on contraceptives were friends, electronic devices and school in ascending order and hence the survey concluded that contraceptive usage and awareness is still in low percentage and needs spread of education in high-risk age group to promote usage[16]. Another case-study which used the United Nations Division Population Database for their survey to assess usage/prevalence of contraceptives and to evaluate the demand for family planning. The study used data from 1990-2010 and found out that the prevalence of contraceptive usage increased from (54.8%) to (63.3%) and the demand for family planning decreased from (15.4%) to (12.3%) in the time period of 20 years i.e. from 1990-2010. The study concluded that, as the usage of contraception in on increase in the recent years dated till 2015, there is a need for huge investments to meet the demands and also at the same time impart knowledge and awareness about contraceptives[7]. In a survey carried out at a pharmacy college in Australian University, the aim was to study perception on timely access to contraceptives and their knowledge with counseling. Majority of subjects agreed to emergency contraceptives being available without prescription but with counseling with a pharmacist[11].

A number of such surveys on contraception and related topics have also been carried out in India and Mumbai (place at which current survey was conducted). A study conducted at Dehradun, Uttarakhand evaluated awareness on contraception and health behavior of urban and rural public. It was found out that females had more knowledge on the subjects and hence was suggested to impart more education and also strengthen the facilities to be more adolescent friendly enhancing their utilization[15]. Another study which was conducted in rural areas on same objective lines reported that majority of the subjects were aware about condoms (99%) but not about other forms and the most relied source for such information was electronic media. Only (68%) subjects had an idea that contraceptives prevent unwanted pregnancies and hence it was concluded that health service providers must actively participate and promote awareness on contraception in rural areas[10]. Another study evaluated the knowledge on temporary contraception over the use of permanent sterilization in developed states of India (Kerala and Punjab). Other factors studied were acceptability and side-effects. The survey concluded that the knowledge in these states is more on all forms of contraceptives due to higher literacy and also couples using contraception were more aware on other forms of contraceptives along with permanent sterilization[9]. A study conducted at Puducherry, South India evaluated the perception, attitude, knowledge, acceptability of contraceptives amongst medical and engineering students with a sample size of 700 subjects. Half of the subjects were not aware about all forms of contraceptives and (19.3%) had a mindset of using them. Friends were the most relied source on for such information and hence formal sexual education and increasing awareness about regular contraception was recommended[8]. In two separate studies conducted in Mumbai city the objective was to evaluate awareness, sexual education levels and related matters such as unwanted pregnancies, pre-marital sex, STD, sexual crimes (which are on rise). The earlier study reported that (60%) subjects thought sex education be imparted at school levels but only half the subjects had good access to the information hence indicating wide spread need for implementation of awareness programs at early puberty stage[6]. The latter study

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conducted at Hinduja College found out that females lacked knowledge on sexuality and other topics and a major finding was that now a days pre-marital sex was more common[12].

III. MATERIALS AND METHODS

The study designed was of evaluative and analytical type. The study was carried out during July-August 2016. The setting selected was campus area of Somaiya College, Vidyavihar (E), Mumbai, India and in Mumbai which has students from Science, Arts, Commerce, I.T., Engineering, Medical, Business management, Architecture, Mass Media study background of various designations. A sample size of 500 subjects was taken out of which 320 were females and 180 males. The population above and below the range of specified age group as well as other non-educational background was avoided/ excluded for the case study. The questionnaire prepared was of two sections in which, for the 1st section the data taken was age, gender and faculty/stream. Confidentiality of the data was maintained throughout the survey. In the 2nd section total 10 questions of which the subjects were allowed to tick mark multiple options according to their knowledge hence allowing us to evaluate awareness in the general public. The questionnaire had 2 yes/no and 8 option based questions.

Students for survey were approached by the case study team at various places of the college campus area such as classrooms, canteens, auditorium, playgrounds, garden, etc. These places are selected so as to get maximum students. Demographic and Psychographic study was conducted. The Demographic data included the age and gender while the Psychographic aspect studied the attitude and psychology of the target public in the current case study. The questionnaire prepared for collection of data was in English as a common and easily understandable language used in campus area of Somaiya College, Vidyavihar, Mumbai. During collection of data, for participant's convenience and for their understanding, explanations were given in various languages like Hindi and Marathi. The questionnaire was tested, reframed and finalized with prior discussions before conduct of case study. The statistics was calculated using Microsoft Excel 2010 software.

IV. RESULTS AND DISCUSSIONS

Overall, it was observed that females were more aware about contraceptives than males, females accounting to (85.5%) and males to (76.66%). The total came to (82.66%). According to the (figure 1). The rate of awareness that contraceptives are used to prevent pregnancy was more in females (88%) and males having (77.7%). Knowledge about birth spacing amongst the people, males with (11.6%) and females with (13.1%) and a total of (12.6%). A total of (11.6%) agreed that contraceptives to not interfere to have a child when required. (25%) believed contraceptives can cure infections. (82.2%) knew that STDs can be prevented by using contraceptives in which (83.3%) were males and (81.5%) were females. According to the data obtained in the current study, subjects believed that contraceptives are used to prevent Urinary tract infection (18.5%), diarrhea (2%) and jaundice (1.8%). Amongst all these (14.85%) had no idea about any of the diseases that could be prevented using contraceptives.

Condoms were the most common method known to people (85%), followed by oral and emergency contraceptives (44.4%); Tubectomy and Vasectomy (23.2%); Contraceptives such as Implants (14.2%), Diaphragm with spermicides (9.4%), Intrauterine device- IUD (8%), Depo-Provera (2.6%) were very less known to people. Side effects of contraceptives were not much known to the subjects but females were more aware of the side effects than males. (32.4%) were not aware of any side effects caused by contraceptives. (37.6%) believed that painful and heavy menstrual flow is the main side effect observed, Pre-menstrual syndrome was not much known i.e. only (13.4%). Other side effects such as Blood clotting/spotting-(26.2%), Hirsutism (Excessive hair growth) (4.4%), Alopecia (8%), Decreased libido (4%) were less known.

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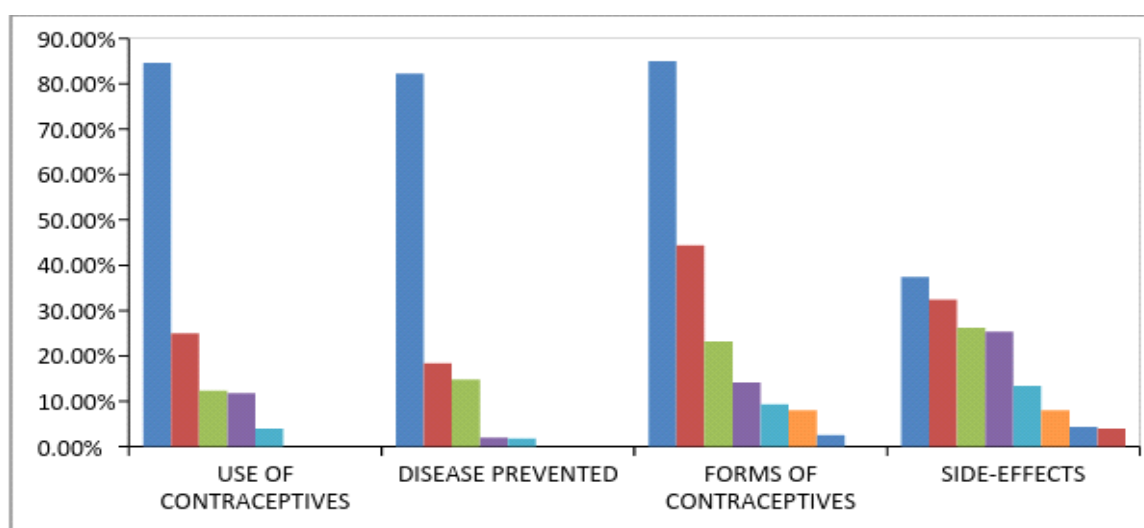


Fig.1:a) reasons for use of contraceptives b) diseases that can be prevented by use of contraceptives c) knowledge on forms of contraceptives d) side-effects of over usage.

In this figure of graphical data it reflects subject's various responses on reasons for using contraceptives (sequence- prevent unwanted pregnancy, birth spacing, having child when required, preventing infections, others), diseases which can be prevented using it(sequence- STDs, UTIs, diarrhea, jaundice, none), Forms of contraceptives subject knows(sequence- Condoms, Emergency contraceptives, implants, Diaphragm, IUD, Depo-provera, Tubectomy/vasectomy), Side effects of contraceptives use(sequence- blood spotting, complication related to contraceptives, heavy/ painful periods, premenstrual syndrome, hirsutism, alopecia, decreased libido, none).

According to the data and graph mentioned below (figure 2), subjects response was that Sexually Transmitted Diseases can spread through body fluids(65%); saliva(15.4%); physical contact(27%); oral sex(23.6%) and sharing of needles/syringes contributed to (49.4%). Males had more knowledge on the spreading of Sexually Transmitted Diseases. (83.33%) males and (84.3%) females felt that, knowledge of contraceptives should be imparted to the youths at an early puberty age. This will contribute to a better awareness among them, thus leading to lower abortion and suicidal rate as well as fewer cases of STDs

According to the present study, subjects mostly rely on information imparted by Health care professionals (57.6%), Health and sex education courses (56.8%), Magazine/Television (19.4%) and Friends/Family(24%). The findings of this study showed that (43.8%) were not aware about any initiatives by government or organizations. (14.4%) Males and (15.3%) females, total of (15%) were aware about ASHA's (Accredited Social Health Activists), (9.4%) males and (6.8%) females, in all (7.8%) were aware of Parivar Seva Sanstha (PSS). Only (35.4%) of the total 500 subjects surveyed were aware of the Family Planning Association of India which comprised of (32.7%) of males and (36.8%) females.(40%) of the subjects found contraceptives beneficial from which (42.7%) were males and (38.4%) were females, (2.6%) did not find it beneficial. (13.4%) agreed on the usage of contraceptives in the future and (19.6%) chose family planning as the best option. Despite the growing population in India, (4.8%) refused to use contraceptives, and a majority of the people, i.e.(36.4%) did not give any remarks on contraceptives.

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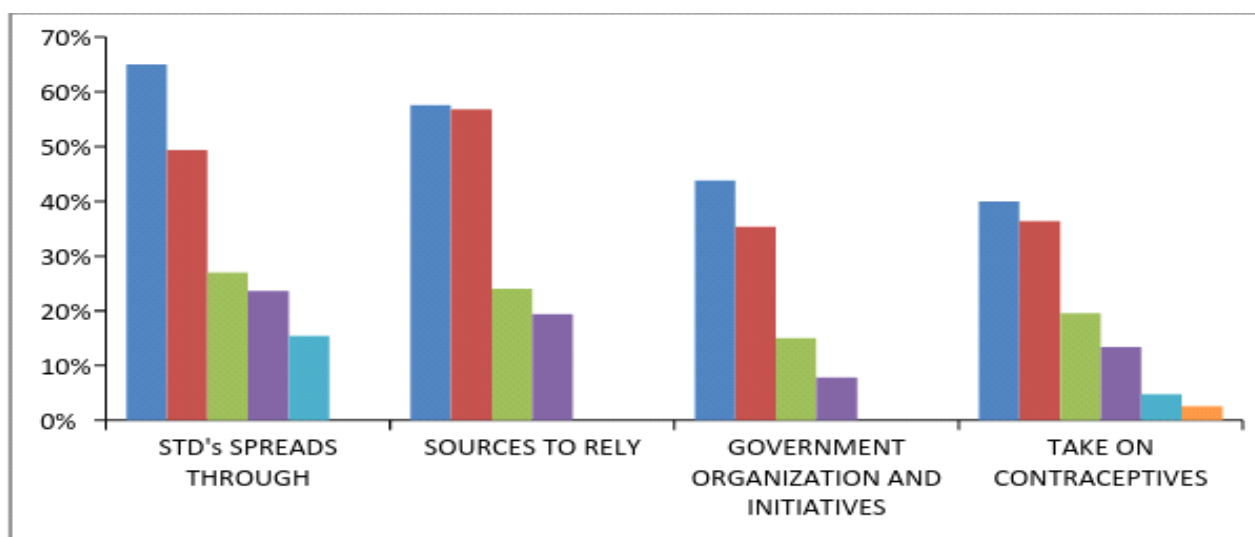


Fig.2: a) spread of STDs through various means b) sources to rely on for information about contraception c) knowledge on government organizations and initiatives d) attitude towards contraceptives.

In this figure of graphical data it reflects subject's various responses on knowledge of subjects on how STD's spreads through (sequence- body fluids, saliva, physical contact, oral sex, sharing of syringes/needles), Sources to rely for contraceptives information (sequence- health care professionals, magazine, friends and family, health and sex education courses), Government organization/initiatives subjects knows (sequence- ASHA, PSS, Family planning association of India, None) and finally their take on contraceptives (sequence- Beneficial, not beneficial, will to adapt family planning, would use contraceptives in future, will not use it in future, no remarks).

From the current case study it is found that the intention of the study was clear to most of the subjects hence the response rate was satisfactory. The awareness about contraception and sex education is not implemented in schools at satisfactory levels hence leading to misconceptions. Also accessing of knowledge through valid sources of information is found to be inadequate. The awareness of newer contraceptive tests and measures was found to be low. This reflects the mentality of narrow selection towards contraception. The authors suggest need of attention towards promotion and spread of knowledge about newer techniques of contraception is required.

Throughout study, data assessment indicated low information about side effects of improper use of contraceptives. At end point of study variable responses of subjects take on contraceptives were observed. Looking at the overall scenario of the awareness amongst college going students in Mumbai, it is mandatory now to implement some laws to bring about more informed utilization and accessibility of contraceptives. The authors suggest that the government should look into the current trends, perceptions and attitude of the high-risk age groups and devise strategies to meet their demands. More counseling sessions, initiatives and involvement should be undertaken by certain organizations to curb the adverse after effects of unsafe sex or unwanted pregnancies.

According to some previous studies, 50% of STD's are caused in the age group 15-24 years of age (**Centers for Disease Control and Prevention, August 2016**). The abortion rate has gone up 61% in India from 16977 abortions in 2010-11 to 27256 abortions in 2012-12. India has the highest suicide rates in the world due to unwanted pregnancies, having 17.1% suicides of total world suicides figures. The same study stated that there was 2.7 fold increase in unwanted pregnancies when compared with use of contraceptives and 14.5 fold increase in unwanted pregnancies with no use of any contraceptive methods at all (**World Health Organization, February 2015**). Contraceptives are known to prevent unwanted pregnancies and STD's. The other objective of this study was to make subjects aware about prevention of other diseases like jaundice and diarrhea and to explain the mechanism of these contraceptives preventing infections. As future prospects, the subjects of this age group should be made more aware, educated and knowledgeable than the earlier generations as unsafe sex, unwanted pregnancies may have devastating after effects on their lives. The

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male and female population under the subject size was made aware about certain facts and information. They were made aware about the side effects of the overuse of contraceptives (especially the females). Complications like conceiving later, blood clotting, Hirsutism, Alopecia, decreased libido, etc. were explained in detail accompanied by detailed explanation of contraceptives and mechanisms on how they function. Also some newer forms of contraception like Depo-provera and LeloHex condoms were explained to the study subjects in detail to make them aware on new trends and be updated. More and more sex education courses should be carried out at school levels. Majorly the female population must be focused as 1/3rd of them had no knowledge about the side-effects of over-usage of contraceptives. Also the involvement of parents with regards to such sensitive topics should be more as they can help project the information through proper means.

V. CONCLUSION

The current study was aimed at evaluating level of awareness on contraceptives in high-risk group of college students. Majority of subjects knew about contraception but not all novel forms. Hence the total awareness was found to be moderate but not up to expected levels and there is a need to spread awareness through proper sources of information and at school levels. Having better awareness about contraception would lead to increase in contraceptive utilization. Currently the Government of India has undertaken certain initiatives and started some organizations which promote safe sexual intercourse and usage of contraceptives. Accredited Social Health Activist's (ASHAs) [Estd. 2005], Parivar Seva Sanstha [Estd. 1978], Family Planning Association of India [Estd. 1949], are some of the organizations spreading awareness on contraceptives having certain common agendas of Family planning, Birth spacing, contraceptive services, abortion services, HIV related services, Education about STD's, Sexual and reproductive health, envisioning sexual and reproduction health for all as basic human rights while acting as health promoters and educators.

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