

AN OBSERVATIONAL STUDY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF USAGE OF ORAL CONTRACEPTIVE PILLS AMONG UNDERGRADUATE STUDENTS OF THIRD FIRST MBBS IN A TERTIARY CARE TEACHING HOSPITAL

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ABSTRACT

Objective: Education about contraceptive measures in reproductive health is of utmost importance. Doctors can directly influence the patients, and it is, therefore, necessary to know their attitude toward contraceptives. This study will assess the knowledge, attitude, and practice of the usage of oral contraceptive pills (OCPs) among the students of the IIIrd first MBBS.

Methods: Among 125 students of the third first MBBS, a questionnaire-based observational knowledge, attitude, perception, and practice study was conducted using Google Forms, at SBKSMI&RC (Shrimati Bhikhiben Kanjibhai Shah Medical Institute and Research Centre), Sumandeep Vidyapeeth in June 2023.

Results: In our study, 59.2% of participants were female and 40.8% were male. Students were of the age 20–23 years. 60.8% of students mentioned their source of information as formal education. On being asked about the different uses of OCPs, 69.6% knew about their use as contraception and 52.8% knew their use in menstrual irregularities. In case of a dose being missed, 18.4% did not know what to do whereas 28% would consult a gynecologist and 53.6% knew what to do. 41.6% of students believed that OCPs carry significant side effects. 42.4% preferred getting OCP from medical stores. For usage or prescription in the future, 52.8% preferred barrier methods whereas 24.8% chose intrauterine devices and only 19.2% opted for OCP. When inquired on reasons for not using OCPs, 31.2% opted for fear of side effects.

Conclusion: The majority of the students had good knowledge, fair attitude, and fair practice toward the use of OCPs.

Keywords: Knowledge, attitude, perception, and practice study, Oral contraceptive pills, Family planning, Emergency contraception.

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INTRODUCTION

The World Health Organization defines family planning as “A way of thinking and living which is adopted voluntarily, based on knowledge, attitude, and responsible decisions by individuals and couples, that promotes the health and welfare of the family and contribute to the social development of the country [1].” India, by 2030, aims to satisfy three-fourths of family planning needs by ensuring easy access to sexual and reproductive health-care services through modern contraception methods [2].

The ratio of male-to-female usage of contraceptives is skewed with females being extreme users of contraceptives [3].

Natural methods, barrier methods, oral contraceptive pills, and intrauterine devices (IUDs) are regular methods of contraception [4].

Continuous research is a compelling idea as contraceptives play an essential role in reducing fertility and population growth leading to better maternal and child health, reduced poverty, gender equality, and balanced education [5].

Combined oral contraceptive pills (COC)

They can be either monophasic or multiphasic. They can be prescribed as cyclic, extended cyclic, or continuous.

Progesterone only pills

They are most effective in treating polycystic ovary syndrome, hirsutism, and acne as they have more potent antiandrogenic properties [6].

The most commonly prescribed pill is the COC oral contraceptive pills (OC) pill [7]. Progesterone acts by preventing ovulation and making the cervix hostile to sperm. Estrogen affects the inhibition of follicular development, exerts negative feedback on gonadotropin release, and decreases FSH release [8].

Estrogen and progesterone combination pills for 21 days followed by 7 days of pill-free interval is the standard regimen. However, continuous or extended regimens have recently been approved [9].

While most common use of OCPs is to prevent pregnancy, 14% of women use them for dysmenorrhea, to delay cycle, fibroids, polycystic ovarian syndrome, pre-menstrual syndrome, menstrual disorders, acne, hirsutism, breast or ovarian cancer, hormone replacement therapy, etc. [10,11] Women who have used combined OCPs have less chances of developing endometrial cancer by 50%, ovarian by 27%, and colon cancer by 18% [12,13].

Common side effects from OCPs are breakthrough bleeding, breast tenderness, increased vaginal discharge, etc. Women with cardiovascular conditions, hypertension, diabetes, or those who smoke should not use pills. Women using OCPs are also known to be at higher risk of developing stroke or myocardial infarction and venous thromboembolism in some cases [14].

Combined oral pills are contraindicated in women who smoke over the age of 35, are hypertensive, have hepatic adenoma, etc. [15].

Progestin pills are contraindicated in women with suspected pregnancy, liver disease, history of bariatric surgery, antiepileptic medication, etc.

OCPs use is influenced by factors such as lack of knowledge, religious beliefs, fear of side effects, self-medication, physician knowledge and experiences, and patient-prescriber interaction. Thus, this study is performed to assess the knowledge, attitude, perception, and practice of the use of OCPs among the students of the third first MBBS.

METHODS

Study design

- Type of study – A questionnaire-based observational survey study
- Place of study – SBKSMI&RC (Shrimati Bhikhiben Kanjibhai Shah Medical Institute and Research Centre), Sumandeep Vidyapeeth
- Source of data – Undergraduate students of third first MBBS students willing to participate in the survey study
- Sample description – The sample was collected by simple randomization method.

It is a non-interventional, questionnaire-based observational study which was carried out at SBKSMI&RC (Shrimati Bhikhiben Kanjibhai Shah Medical Institute and Research Centre), Sumandeep Vidyapeeth. The study was initiated after the approval of the Institutional Ethics Committee of SBKSMI&RC (Shrimati Bhikhiben Kanjibhai Shah Medical Institute and Research Centre), Sumandeep Vidyapeeth.

Participant's inclusion and exclusion criteria

Inclusion criteria

All those undergraduate students of the third first MBBS are willing to participate in the survey study.

Exclusion criteria

All those undergraduate students of third first MBBS who are not willing to participate in the survey study.

Material for study

Google Form-based questionnaires for undergraduate students of third first MBBS, who were willing to participate in the following survey study.

Methodology

The proposed study is cross-sectional, observational, and questionnaire-based (Annexure-1).

Sample size (n) = 125

By the purposive sampling method, I have taken the sample size as 125. The calculated sample size was 125 according to the student count in the third first MBBS. This was calculated after excluding those students who were not willing to participate.

Statistical analysis

It is done using a Microsoft Excel sheet.

BIAS

No potential source of bias is present.

RESULTS AND DISCUSSION

One hundred and twenty-five students of the third first MBBS agreed to participate in this study. 51 (40.8%) of those students were male and 74 (59.2%) were female. Most students fell in the age group of 20–23 years. The majority of students, i.e., 76 (60.8%), mentioned their source of information as formal education. On being asked about different uses of OCPs, 87 (69.6%) of them knew their use as contraception, 66 (52.8%) knew use in conditions related to menstruation, and 51 (40.8%) knew as use for PCOD. When asked, what is to be done when a dose is missed, 23 (18.4%) of them did not know what to do whereas

35 (28%) said that they would consult a gynecologist, and 67 (53.6%) knew what needed to be done Table 1. 52 (41.6%) students believed that OCPs carry significant side effects whereas 39 (31.2%) thought they have no side effects and 34 (27.2%) were not sure if they caused side effects. Most of them, i.e., 53 (42.4%) students preferred getting OCPs from pharmacist/medical stores whereas 12 (24.8%) of them preferred to get it from public health facilities and 11 (12.8%) got them from friends Table 2. On being asked their preferred mode of contraception, 66 (52.8%) of those students went with barrier methods, 31 (24.8%) went with IUDs, 4 (3.2%) went with withdrawal method, and only 24 (19.2%) opted for OCPs. When inquired about their or their family member's reasons for not using OCPs 39 (31.2%) of them stated fear of side effects whereas 25 (20%) said they did not know about the dose or frequency, and 69 (48.8%) did not need to use it yet Table 3.

India is still struggling to contain the population outburst despite being the first country in the world to implement a national population control program as early as 1952. Despite, the global increase in the prevalence of the use of contraception, unmet needs of contraception are still a main problem. Health-care providers can directly influence the information provided to patients; therefore, there is an immense need to know their preferences in contraceptives [16]. Thus, utmost importance needs to be given to regular contraception and emergency contraception, among other family planning methods [17].

Our questionnaire included 22 questions of which, eight were knowledge-based questions, seven were attitude-based questions, and seven were practice-based questions.

The national survey of men was a study conducted among men aged 20–39 years to evaluate the perception of roles and responsibilities toward contraception, which showed that 78% opined that men and women are equally responsible for contraception, in contrast, 15% thought men have a greater responsibility and 7% thought that women take decisions regarding contraception. Similar results were observed in our study where 75.2% of participants felt that both men and women are equally accountable for contraception whereas 15.2% believed that women were accountable and 9.6% believed that men were accountable for contraception [18,19].

In a similar cross-sectional study done in Vietnam on medical students about awareness of contraception, 83% of participants did not consider discussing contraception with a partner to be embarrassing, in comparison, in our study, 68.8% were open about discussing contraception with their partner, while 12.8% were not comfortable, 18.4% were not sure and opted for maybe [20].

According to a study done by Afolabi *et al.* in rural Nagos, Nigeria, educational institutions were the primary source of contraceptive advice in single women (26.9%) whereas, health facilities were the primary sources of such information among married women (53.3%). The ratio of married women to single women reaching out to a health-care professional is 6:1. In contrast, single women are more likely to consult educational institutions regarding contraception, followed by traditional birth attendants, friends, and colleagues. Similar findings were noted in our study where 59.2% of the undergraduates preferred to consult a gynecologist whereas, 14.4% opted that they would use it as self-medication. In comparison, 10.4% would rely on the Internet and 8.8% opted that they would consult their friends [21].

A study done in Delhi revealed that 54% cited their source of information about contraceptives as television and 42% said that their source was friends and relatives [22]. It is similar to a study done in Raipur, where the primary source of information for 88.1% was media and for the rest 5.4%, it was friends and relatives. Another study was done in Puducherry where 59.4% revealed their primary source as mass media, followed by 25.4% citing their source as health workers. In contrast, our study showed that 60.8% listed their source of education as formal

Table 1: Result of knowledge-based questions

Variable	Number	Percentage
1. What were your sources for obtaining information about OC Pills?		
Internet/media	39	31.2
Pharmacist	16	12.8
Friends	35	25.6
Gynecologist/health personnel	36	28.8
2. Since when do you know about OC Pills?		
Since higher secondary school	87	69.6
During MBBS	35	28
I do not know yet	3	2.4
3. Which of the following conditions can OC Pills be used for?		
To prevent sexually transmitted infections	20	16
To treat hirsutism, acne	33	26.4
For weight loss	10	8
4. What are the types of OCPs you know available? A) combined OCP [estrogen + progestin] B) progestin-only C) estrogen-only D) extended or continuous use pills		
All of the above	63	50.4
Both B and C	16	12.8
A, B, and D	27	21.6
A, B, and C	19	15.2
5. What are the common side effects that you know about the OC Pills?		
Breakthrough bleeding	73	58.4
Headache	58	46.4
Pregnancy	24	19.2
Increased vaginal discharge	53	42.4
Permanent sterility	24	19.2
6. Can OC Pills be used as emergency contraception?		
Yes	75	60
No	28	22.4
Do not know	22	17.6
7. Are OCPs available without prescription?		
Yes	73	58.4
No	27	21.6
Do not know	25	20

Table 2: Result of attitude-based questions

Variable	Number	Percentage
Do you believe OCPs should be freely available without prescription?		
Yes	79	63.2
No	46	36.8
2. Do you believe OCPs are effective?		
Yes	83	66.4
No	13	10.4
Can not say	29	23.2
3. Place you would be comfortable obtaining OCPs from?		
Private doctor or clinic	31	1.6
Social worker	2	8.8
Online	16	9.6
4. Would you recommend OCPs to others in the future as a method of contraception?		
Yes	69	55.2
No	19	15.2
Maybe	37	29.6
5. Would you or your partner use OCPs in the future as a method of contraception?		
Yes	53	42.4
No	35	28
Maybe	37	29.6
6. Can OC Pills be regularly used as a method of family planning?		
Yes	59	47.2
No	40	32
Do not know	26	20.8

education while 31.2% as internet/media, 28.8% as gynecologist/health personnel, 25.6% as friends, and 12.8% opted for the pharmacist as their source of information [23,24].

Table 3: Result of practice-based questions

Variable	Number	Percentage
1. With whose advice would you or your partner use OCPs (or would use in the future)?		
Gynecologist	74	59.2
Friends	11	8.8
Internet	13	10.4
Parents or relatives	09	7.2
Self	18	14.4
2. Have you (or your family member) ever used OCPs?		
Yes	40	32
No	85	68
2A What did you (or a family member) use OCPs for?		
Acne/hirsutism	9	15
Polycystic ovarian syndrome	11	18.3
Menstrual irregularities	10	16.7
Dysmenorrhea	10	16.7
Contraception	20	33.3
4. Who is responsible for contraception?		
Men	12	9.6
Women	19	15.2
Both are equally responsible	94	75.2
5. Would you be open and comfortable to have a discussion about contraception with your partner?		
Yes	86	68.8
No	16	12.8
Maybe	23	18.4
7. Have you ever advised OCPs to anyone?		
Yes	45	36
No	80	64

When asked about the most commonly known side effects, 58.4% selected breakthrough bleeding, 46.4% opted for headache, and 42.4% went for increased vaginal discharge. In comparison, 19.2% were wrongly informed and went for pregnancy and sterility each. Similar results were seen in a study conducted at a tertiary care center of coastal Karnataka, India, where around 50% of subjects thought that they cause irregular bleeding and about 25% felt that they are responsible for weight gain and only a few (8%) opted for weight gain as a side effect [25].

On being asked, about their choice of contraception for usage or prescription in the future, 52.8% opted for barrier method. In comparison, 24.8% went for IUDs, and only 19.2% selected OCPs as their preferred mode of contraception whereas 3.2% said that they would go for the withdrawal method. This was in stark difference to a study done among medical students in a tertiary care center of coastal Karnataka where 91% of students chose condoms whereas, 4% of students went for IUDs and OCPs each and only 1% of students selected coitus interruptus as their choice of contraception [26].

CONCLUSION

Results from our study highlight the importance of educating medical students about reproductive health and various modes of contraception. Knowledge serves as the base for shaping attitude which in turn, influences practice. Thus, it is essential to keep medical students informed and educated so that they can help in suggesting the best suitable family planning methods, to reinforce the implementation and acceptance of various new practices in the community. Further, more studies are needed to resolve the under-utilization of family planning services in India and to find reasons for hesitant behavior toward contraception.

Limitations of the study

Our study has some limitations, the most important is the lack of involvement of more students. We could focus on only one batch of 150 students of the third first MBBS. Due to the stigma attached to talking about contraception, some students were hesitant to talk about their preferences and practices.

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CONFLICT OF INTEREST

Nil.

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