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## Research Article



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## A Descriptive Study on the Knowledge and Attitude of Female College Students towards Contraception

<sup>1</sup>J. Eswari., <sup>\*2</sup>Premalatha Paulsamy, <sup>3</sup>Absar Ahmed Qureshi,  
<sup>4</sup>Krishnaraju Venkatesan, <sup>5</sup>Pranave Sethuraj.

<sup>1</sup>Professor, Vee Care College of Nursing, Chennai E-mail: [eswarisingaravel2007@gmail.com](mailto:eswarisingaravel2007@gmail.com),  
Mobile: +91- 97878 32502

<sup>\*2</sup>College of Nursing, Mahalah Branch for Girls, King Khalid University, Asir Province, Saudi Arabia  
E-mail: [pbonnuthai@kku.edu.sa](mailto:pbonnuthai@kku.edu.sa). Mobile: +966-563595142. ORCID ID: 0000-0001-5117-480X

<sup>3</sup>Department of Pharmacology, College of Pharmacy, King Khalid University, Abha, Asir Province,  
Saudi Arabia. E-mail: [aqureshi@kku.edu.sa](mailto:aqureshi@kku.edu.sa), Mobile: +966- 534539759. ORCID ID: 0000-0002-0577-6700

<sup>4</sup>Department of Pharmacology, College of Pharmacy, King Khalid University, Abha, Asir Province,  
Saudi Arabia. E-mail: [kvenkatesan@kku.edu.sa](mailto:kvenkatesan@kku.edu.sa). Mobile: 6+966-504839653.  
ORCID ID: 0000-0003-2853-5907

<sup>5</sup> Software Engineer, Vee Care College of Nursing Chennai, E-mail: [spranave98@gmail.com](mailto:spranave98@gmail.com),  
Mobile: +91 7598354736, ORCID ID: 0000-0002-7609-3990

\*Corresponding author

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### Abstract

Effective contraception plays a vital role in the economic advancement and reproductive health of women. This study aimed to assess the knowledge and attitude regarding contraception of female college students of a university. A descriptive study design was used with 100 female students of different departments including Arts and Science, engineering, nursing etc, who were selected by convenient sampling technique. A self reported tool was used with 3 sections including demographic data, knowledge questionnaire and a 3 point Likert scale to assess the attitude. The overall level of knowledge ( $8.86 \pm 3.56$ ) shows that there was inadequate knowledge among the female college students on contraception. The overall percentage of female college students with a positive attitude was only 28.66%. There was no correlation between participants' knowledge of contraception and their attitudes about it. ( $\chi^2 = 1.17$ ,  $df = 1$ ,  $p = 0.28$ ). The study concludes that there is an urgent need to improve the knowledge of the female college students on contraception to prevent unwanted pregnancies as well as maternal and neonatal mortality and morbidity.

**Keywords:** Knowledge, Attitude, Female College Students, Contraception, Family Planning

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## Introduction

Globally, family planning coverage is insufficient. Every year, an estimated 45 million unintended pregnancies are terminated, with 19 million of those ending in dangerous circumstances<sup>1</sup>. Teenagers and young women aged 15–24 years account for more than 40% of all unsafe abortions; adolescents account for roughly 15% of the world's population, with the majority living in underdeveloped nations<sup>1</sup>.

In underdeveloped nations, the proportion of young women reporting unwanted pregnancy and unmet contraceptive needs remains high<sup>2</sup>. Unintended pregnancies have been linked to a higher incidence of unsafe abortions, as well as maternal morbidity and mortality<sup>3</sup>. Contraceptive use has been prioritized as a major intervention to prevent unplanned births and their negative consequences<sup>4</sup>. The Millennium Development Goals (MDG) <sup>5, 6</sup> included improving universal access to sexual and reproductive health care, including contraception.

One in every three women in poor nations gives birth before the age of 20, and pregnancy-related death during childbirth is two times higher in women under the age of 20<sup>6</sup>. Women aged 15–19 years account for a fifth of the estimated 20 million unsafe abortions and 70,000 related fatalities each year<sup>6</sup>. It is obvious that the adoption of efficient contraceptive techniques may avoid 90% of abortions, 20% of pregnancy-related morbidity, and a third (32%) of maternal deaths globally <sup>5</sup>.

Unplanned pregnancies account for 78 percent of all pregnancies in India. And roughly a quarter of them are thought to be undesired. Every year, over 11 million abortions occur, with 6.7 million being induced and 4 million occurring spontaneously. Abortions have been legal in India since 1971 for particular reasons under the MTP statute. However, for every legal abortion, there are around 10 to 11 illicit abortions. Nearly 20,000 women die each year as a result of abortion-related complications that are almost always avoidable<sup>7</sup>. Unwanted and unexpected

pregnancies thus play a significant role in young adults' reproductive health.

Unwanted pregnancies are frequently caused by situations such as unprotected intercourse, poor use of regular contraceptives, failure of barrier devices, sexual violence, and underestimation of the fertile period. In light of the foregoing, a survey was conducted to analyze female college students' knowledge and attitudes towards contraception with the overall objective to prevent maternal and neonatal morbidity as well as mortality.

## Materials and Methods

**Design:** A quantitative, non-experimental, descriptive and cross-sectional study was conducted among female college students of a selected University, Tamilnadu, India.

**Sample:** The target population of the study were all the female students who were studying in the university. The study samples were the college students with the age group of 20 and above and who were willing to participate in the study. To obtain a confidence interval of 95% and 5 % precision a sample size of 74 was calculated for this study. The convenient sampling technique was used to select 100 female students of different departments including Arts and Science, engineering, nursing etc.

**Tools/instruments:** There were three components to the self-report survey tool: Part 1: Demographic data about the female students; Part 2: A structured knowledge questionnaire about contraceptives, Part 3: contraception attitude scale. The tool was prepared by the investigators after an extensive review of available literature and the questionnaire was pretested during the pilot study.

The questionnaire was used to collect data on demographic variables of the female students, knowledge and attitudes on contraceptive methods. The knowledge questions had 25 statements with 'yes' or 'no' options. The maximum score was 25 with 75% of score is considered as adequate knowledge. The attitude scale is a 3 point Likert scale with 6 questions, the score ranges from 1–18, where a score of 1- 9 was

regarded as unfavourable attitude while 10 and above were regarded as favourable attitude content validity of the tool was obtained from the experts from Nursing and Obstetrics and Gynaecology. The reliability of the tool was assessed after the pilot study by internal consistency with Cronbach Alpha test. The 'r' value of the tool was 0.76.

**Procedures of data collection:** The tool was self-administered questionnaire which took approximately 45 minutes to complete. It was distributed to the students through as Google docs by email, what's app etc. They were reminded about the completion of the tool 3 times and it was made certain to complete all the questions. The study was conducted between Mar'.2021 to May' 2021.

**Ethical consideration:** Official Permission from the Dean of the University was obtained as well as ethical permission was obtained from the Institutional ethical committee. A written consent from the participant students were collected before the study by explaining the purpose of the study, the role of the participants, confidentiality of the information and their right to withdraw from the study at any point of time of the study.

**Table 1: Distribution of level of Knowledge on aspects of contraception among female college Students**

Level of Knowledge on aspects of contraception	Mean± SD
Functions of contraceptive Methods	2.01±0.78
Types of contraceptive Methods	
Traditional	1.42±0.68
Modern	1.42±0.68
Sources of contraceptive Methods	1.15±0.52
Role of contraceptive Methods on STIs	1.39±0.71
Overall Knowledge	8.86 ±3.56

Distribution of level of knowledge on aspects of contraception among female college Students are shown in Table 2. The overall knowledge on contraception was 8.86 ±3.56 for 25 questions related to contraception. Functions of contraceptive Methods (2.01±0.78), types of contraceptive Methods: traditional (1.42±0.68) and modern (1.42±0.68) methods had the mean

### Statistical analysis:

The socio demographic data, knowledge and attitude of the participants were analyzed using frequencies, percentage distribution and mean and standard deviation. Inferential statistics was used to find the relationship between knowledge and attitude as well as level of knowledge and attitude with selected socio-demographic characteristics using Chi-square test.

### Results

A total of 100 students took part in the research. The mean (SD) age was 20.7 (2.13) years, with the majority (87 percent) between the ages of 20 and 24, 43 percent in second year of the study, and Christian faith (Catholics 33 percent, protestants 17 percent) as the most common religion stated. The majority of students (87%) were not married and little over a third (39%), lived in hostels, and followed by day scholars (61%). Fifty one students were from arts and Science, 22 % from engineering and remaining 17% were nursing students.

level of knowledge with SD respectively. On the sources of contraceptive Methods, the mean level of knowledge of the female college students was 1.15±0.52 whereas on the role of contraceptive Methods on STIs, it was 1.39±0.71. The overall level of knowledge shows that the female college students don't have adequate knowledge on contraception.

Among the methods, the responses were about Pills (71 %) and male condoms (86 %) were the most widely mentioned modern techniques,

followed by injectables (37 %), IUDs (34 %), implants (30 %), female condom (24 %), and withdrawal (17 %).

**Table 2: Distribution of level of attitude towards contraception among female college Students**

Level of attitude of female students on contraception	Favourable Attitude (%)
Accessibility of the Family planning services and contraceptives	27
It is easy to discuss about family planning and contraceptives with the partner	24
The contraceptives are females only	9
It is wrong to use contraceptives	21
Side effects are more than benefits of contraception	43
Couple counselling will help to improve male contraception	48
Overall favourable Attitude	28.66

Overall, nearly 27% of women believe that contraceptive options are readily available, or that discussing sexual problems with a partner is easy (24 %). Only 9% of respondents thought contraception was only for women and 21% said that using contraceptives is wrong. Forty eight percent of the female students thought that couple counselling may help to improve male involvement in contraceptive use and 43% thought that the side effects of contraception are more than benefits. The overall percent of the favourable attitude of female college students was 28.66 only.

There was no significant relationship between participants' knowledge and their attitude towards contraception ( $\chi^2 = 1.17$ ,  $df = 1$ ,  $p = 0.28$ ). Regarding the demographic variables, the association between the socio-demographic variables with the level of knowledge regarding contraception, none of the variables show statistically significant association.

Participants aged 25 years ( $p = 0.05$ ), married participants ( $p = 0.01$ ), the nursing group ( $p = 0.05$ ), and hostellers ( $p = 0.01$ ) all showed significant relationships with the level of attitude towards contraception. Gender ( $p = 0.30$ ), year of study ( $p$

$= 0.21$ ), and location of residence ( $p = 0.31$ ) were not, however, associated with the attitude level.

## Discussion

According to the study by Sunil M B., Nagarajappa., (2019)<sup>8</sup> on a descriptive study to assess the knowledge and attitude of married women in reproductive age group regarding emergency contraception in selected urban area, Bathinda, the majority of women (89.09 %) had insufficient knowledge on emergency contraception (EC) as a whole and likely to hold a pessimistic attitudes of EC. This is similar to our study findings that the female college students had mean knowledge of 8.86 with the SD of 3.56 out of 25 as maximum score. The overall favourable attitude of them was 28.66 only. Women aged 15–19 years account for a fifth of the estimated 20 million unsafe abortions and 70,000 related fatalities each year<sup>6</sup>. To avoid such unwanted pregnancies and reduce mortality related to that, it is the need of the hour to educate the women in the reproductive age about the contraceptive methods and empower them to enhance a healthy reproductive life.

Despite the overall low level of knowledge, the mean knowledge on the role of contraceptives on STIs was just  $1.39 \pm 0.71$  which was a worrisome finding. This shows that the individuals were not aware that they were at risk for STDs or pregnancy. They were at a high risk of sexually transmitted diseases or unwanted/unplanned pregnancies as a result of their lack of awareness. Information regarding contraception should be offered to the women in reproductive age, so that they can make informed decisions and it can help to reduce the maternal and infant mortality rates.

In the present study, regarding the demographic variables, the association between the socio-demographic variables with the level of knowledge regarding contraception, none of the variables show statistically significant association. In contrast to the present study findings, the findings of the study by Winifred Ukoha & Nomaxabiso Mooi (2019)<sup>9</sup> on Nursing Students' Knowledge, Attitude and Use regarding an Implanted Contraceptive Method reported that age and marital status had a significant association with the level of knowledge of nursing students. Also, Twenty-five (41.7%) of the respondents were unaware that Implanon (Implanted Contraceptives) was available, and 35 women (58.3%) expressed negative feelings about the contraceptive methods. Similar findings also reported in few studies<sup>10-13</sup> which show that age and marital status have significant association with the level of knowledge.

Hence, IEC materials should be used to build ways to spread contraception knowledge, and information about it should be included in educational institution curricula. Many contraception and family planning awareness campaigns should be undertaken among college students to prevent undesired, unexpected pregnancy and abortion, as well as STDs.

## Conclusion

According to the study findings, the overall knowledge and attitude of the female college students was low. There is a need for focused

education interventions with regard to contraception among reproductive women.

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## Declaration of Conflicting Interests

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

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