

Knowledge and Attitude Regarding Use of Menstrual Cup Among Female College Students Aged 18-21 Years in Ambalapuzha Taluk

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ABSTRACT

The study aimed to assess Knowledge and attitude regarding use of menstrual cup among female college students aged 18-21 years in Ambalapuzha taluk. The objectives of the study were to assess the level of knowledge regarding use of menstrual cup among female college students, assess the attitude of female college students towards use of menstrual cup, determine the relationship between knowledge and attitude of female college students regarding use of menstrual cup, determine the association between knowledge of female college students regarding use of menstrual cup and selected socio personal variables and determine the association between attitude of female college students regarding use of menstrual cup and selected socio personal variable. The conceptual framework adopted for this study was Rosenstock's health belief model. Cross-sectional survey design was used in this study. Using multistage cluster sampling, 300 female college students were selected from selected colleges of Ambalapuzha taluk. Socio personal data were obtained by using socio personal data sheet and the knowledge of female college students regarding use of menstrual cup were assessed by using a questionnaire. Attitude towards the use of menstrual cup was assessed by using a Likert rating scale. All the data were collected as self-reports from female college students. The study findings showed that 83.3% of female college students had average knowledge regarding use of menstrual cup. Out of 300 female college students, 5.3% had unfavorable attitudes and 94.7% had favorable attitude towards use of menstrual cup. There was a moderate positive correlation (+.560) between knowledge and attitude of female college students regarding use of menstrual cup. There was statistically significant association between knowledge of female college students and socio personal variables including education of mother and occupation of father. There was a significant association between the attitude of female college students and education of mother. The study concluded that providing appropriate knowledge regarding use of menstrual cup will help to increase the adaptability of the menstrual cup without causing any harm.

Keywords: Knowledge, attitude, use of menstrual cup, female college students.

INTRODUCTION

Menstruation is a physiological process, which is associated with the ability to reproduce. The name menstruation comes

from the Latin word 'menses' meaning moon, concerning the lunar month and lasting approximately 28 days long. Its

onset profoundly changes a young woman's life.¹

Girls and women need effective, safe, and affordable menstrual products. The menstrual cup was first invented by an American actress, Leona Chalmers, who patented the cup in 1937.² It is a device that is inserted into the vagina during menstruation. It acts by collecting menstrual fluid. They are usually made of flexible medical-grade silicon or rubber and shaped like a bell with a stem. The cup has to be removed, emptied, rinsed, and reinserted depending on the amount of the flow (usually every 6-12 hours).³

A cross-sectional study conducted to assess the perception of menstrual cup usage among teens and reproductive age group women in a tertiary care institute, Andhra Pradesh reported that 87.8% were using sanitary pads, 11.59% were using clothes and 0.6% were using menstrual cup during menstruation. 26.3% of study participants reported that they were aware of menstrual cup and 4.65% had good knowledge regarding menstrual cup.⁴

The study was intended to find out the knowledge and attitude regarding use of menstrual cup among female college students.

MATERIALS & METHODS

The research design used was Cross-sectional design and the selected population was female college students who were studying in selected Colleges of Ambalapuzaha taluk. The sampling technique was multi-stage cluster sampling. The sampling size was calculated based on expected prevalence. Since the method of sampling was multistage cluster sampling included a design effect of 1.5 in sample size. So the estimated sample size was 300.

STATISTICAL ANALYSIS

Statistical Package for the Social Science (SPSS) version 26, IBM, Chicago, USA, was used for data analysis. Analysis and interpretation of data were done using descriptive and inferential statistics.

knowledge and attitude of female college students regarding use of menstrual cup were analyzed by using frequency and percentage. The relationship between the knowledge and attitude of female college students regarding the use of menstrual cup were analyzed by using Karl Pearson's Correlation coefficient. The association between the knowledge and attitude of female college students with selected socio-personal variables was analyzed by using the chi-square test or Fisher's exact test.

RESULT

Table 1 Frequency distribution and percentage of female college students based on use of menstrual cup (n=300)

Use of menstrual cup	f	%
Yes	6	2.0
No	294	98.0

From table 1 it is clear that only 2.0% of female college students used menstrual cup and 98% of female college students did not use the menstrual cup.

Table 2 Frequency distribution and percentage of knowledge of female college students regarding the use of menstrual cup (n=300)

Knowledge	f	%
Poor knowledge (<11)	45	15.0
Average knowledge (11-17.6)	250	83.3
Good knowledge (>17.6)	5	1.7

Table 2 depicts that 83.3% of female college students had average knowledge and 1.7% of female college students had good knowledge regarding use of menstrual cup.

Table 3 Frequency distribution and percentage of female college students based on attitude towards the use of menstrual cup (n=300)

Attitude	f	%
Favourable (>45)	284	94.7
Unfavourable (≤45)	16	5.3

Table 3 shows that 5.3% of female college students had unfavourable attitude and 94.7% of female college students had favourable attitude towards use of menstrual cup.

Table 14 Correlation between knowledge and attitude of female college students regarding use of menstrual cup (n=300)

Variables	r	p
Knowledge	.560***	0.0001
Attitude		

*** significant at 0.001 level

From table 14 it can be seen that there was moderate positive correlation (+.560). This correlation was statistically significant at 0.001 level. Hence the null hypothesis H₀₁ was not accepted and it can be interpreted that there was statistically significant relationship between knowledge and attitude of female college students regarding use of menstrual cup.

Table 4 Association between knowledge of female college students regarding use of menstrual cup and selected sociopersonal variables (n=300)

Sociopersonal variables	df	χ ² /FE	p value
Age	6	13.37	0.20
Year of study	8	13.06	0.212
Family monthly income	12	11.928	0.498
Education of mother	12	6.507*	0.018
Education of father	12	10.433	0.684
Occupation of mother	12	6.158	0.849
Occupation of father	14	28.742*	0.014
Use of menstrual cup	2	9.184	0.91

*Significant at 0.05 level

Table 4 Illustrates that there was statistically significant association between knowledge of female college students and socio personal variables including education of mother and occupation of father. But there was no significant association between knowledge of female college students and other sociopersonal variables. Hence null hypothesis H₀₂ was accepted.

Table 5 Association between attitude of the students towards use of menstrual cup and selected sociopersonal variables (n=300)

Variables	df	FE	p value
Age	6	0.817	0.681
Year of study	4	12.209	0.107
Monthly family income	6	17.123	0.14
Education of mother	6	20.007*	0.01
Education of father	6	10.698	0.60
Occupation of mother	7	7.00	0.419
Occupation of father	4	2.162	0.853
Use of menstrual cup	1	0.345	0.415

*Significant at 0.05 level

Table 5 Illustrates that there was significant association between attitude of female college students and socio personal variables including education of mother. But there was no association between attitude of female college students and other socio personal variables.

Hence H₀₃ was accepted and there was no significant association between attitude of female college students towards use of menstrual cup and selected sociopersonal variables.

DISCUSSION

The present study revealed that only 2% of students used menstrual cup. These findings are congruent with the findings of the study carried out at A J Institute of Medical Science Hospital, Mangalore among reproductive women. In this study, only 2.6% of participants used menstrual cup.⁵

Knowledge of female college students regarding use of menstrual cup

In the present study, 83.3% of female college students had average knowledge, 1.7% had good knowledge and 15% had poor knowledge regarding use of menstrual cup. These findings are congruent with the findings of the study carried out in Mangalore. The study result revealed that 86.9% of participants had good knowledge and 13.1% of participants had poor knowledge regarding use of menstrual cup.⁶

Attitude of female college students towards use of menstrual cup

The present study revealed that 94.7% of female college students had a favourable attitude towards use of menstrual cup. This is supported by findings of the study done by Choudary D. and Ray P S to assess the attitude towards menstrual cup use among working women. The result of the study showed that 73.3% had a positive attitude towards the use of menstrual cup.⁷

Correlation of knowledge and attitude of female college students regarding use of menstrual cup

In the present study, there was a moderate positive correlation (+.560) between knowledge and attitude regarding use of menstrual cup. This correlation was statistically significant at 0.001 level. This is supported by findings of a study done by Thappa T and Roy M S to assess the knowledge and attitude regarding menstrual cup among young women. The study result showed that there was a moderate positive correlation ($r=+0.407$) between knowledge and attitude and was statistically significant at ($p<0.001$) level.⁸

Association of knowledge of female college students regarding use of menstrual cup and selected socio personal variables

The present study revealed that there was a significant association between knowledge of the female college students and socio personal variables including education of the mother and occupation of the father. In a study conducted by Devan SMG. Mohan G. Ajitha KG. Kavitha H. Majeed J. Nair KNA to assess the knowledge, attitude and practice regarding menstrual cup among females in an Urban setting of South Kerala, knowledge of the participants were associated with age, educational status, socio economic status and marital status. In another study conducted by Seldom N and Bessy A M to assess the level of knowledge regarding menstrual cup among women of reproductive age group, there was no association between the level of knowledge and selected baseline variables.⁹

Association of attitude of female college students regarding use of menstrual cup and selected socio personal variables

Attitude of female college students was associated with socio personal variables including religion and education of mothers. A study conducted to assess the attitude towards menstrual cup use among working women revealed that there was no association between attitude and selected socio demographic characteristics of participants including age in years, marital

status, education level, monthly income, method adopted for disposing of sanitary product, frequency to change sanitary protection.⁷

CONCLUSION

Most of the female college students (83.3%) had average knowledge and only 1.7% had good knowledge regarding use of menstrual cup. Regarding the attitude of female college students towards the use of the menstrual cup, 94.7% had favourable attitude and 5.3% had unfavourable attitude. The study result showed that there was a moderate positive correlation (+.560) between knowledge and attitude regarding use of menstrual cup.

It was found that there was a significant association between knowledge of the female college students and socio personal variables including religion, education of mother and occupation of father, and attitude of female college students were associated with socio personal variables including religion and education of the mother. Only 2% of female college students used menstrual cup.

A menstrual cup is a non-toxic, non-allergic, and reusable silicon menstrual fluid collection device constructed of non-allergic and non-toxic silicone. Although menstrual cup is available for many years, still their uses are very low. One of the main causes of poor use is the lack of knowledge in maintaining the hygiene of the cup. Providing appropriate knowledge regarding menstrual cup will help to increase the adaptability of menstrual cup without causing any harm.

Declaration by Authors

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