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COMPARATIVE STUDY ON ATTITUDE TOWARDS MENSTRUAL CUP USE AMONG URBAN AND RURAL WOMEN, MANGALORE

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ABSTRACT
This comparative study investigates the attitude towards menstrual cup usage among urban and rural women in Mangalore. With sanitary napkins contributing significantly to solid waste and environmental pollution, exploring eco-friendly alternatives like menstrual cups becomes crucial. In the quest to address the environmental impact of sanitary napkin waste, this study delves into the attitudes of urban and rural women in Mangalore towards menstrual cup adoption. The focus lies on the potential shift from traditional sanitary pads to the more sustainable and cost-effective menstrual cups, which remain relatively underutilized among Indian women. By surveying 60 participants, evenly distributed between urban and rural settings, the research aims to unveil the perceptions and inclinations towards menstrual cup usage in these distinct communities. Sanitary napkins, prevalent in menstrual hygiene practices, pose challenges due to their contribution to solid waste and subsequent environmental harm. Introducing menstrual cups as an eco-friendly alternative requires understanding and addressing the attitudes and acceptance levels among women in varied socio-cultural backgrounds. The utilization of an attitude scale in interviews allows for a comprehensive analysis of factors influencing the adoption of menstrual cups, shedding light on the barriers and facilitators in urban and rural contexts. This comparative study not only explores the current awareness levels but also seeks to uncover the underlying factors shaping the attitudes towards menstrual cup use, paving the way for informed interventions promoting sustainable menstrual hygiene practices in Mangalore.

Keywords: *Menstrual cup, attitude, urban women, rural women, Mangalore, sanitary napkins, solid waste, environmental pollution, eco-friendly, cost-effective, popularity, India.*

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INTRODUCTION

The comparative study on the attitude towards menstrual cup use among urban and rural women in Mangalore addresses a pressing issue at the intersection of women's health and environmental sustainability. Menstrual hygiene management is a critical aspect of women's health, yet the disposal of traditional sanitary napkins poses significant environmental challenges due to their non-biodegradable nature. In this context, menstrual cups emerge as a promising eco-friendly alternative that not only offers a sustainable solution but also addresses the financial burden associated with monthly menstrual products.

Mangalore, a city known for its diverse demographics encompassing both urban and rural populations, provides an ideal setting to explore the differential attitudes towards menstrual cup adoption. The study aims to bridge the gap in understanding between these two distinct communities, shedding light on the factors influencing the acceptance and utilization of menstrual cups. By examining the attitudes, perceptions, and barriers towards menstrual cup use among women in urban and rural areas, this research endeavours to contribute valuable insights towards promoting sustainable menstrual hygiene practices tailored to the specific needs of diverse populations in Mangalore. Menstruation is a vital part of women's life that prepares the women to give rise to a new life; menstruation is a physiological process that happens to every female body.

Menstruation starts in the puberty and during this period the female body will undergo lots of changes. In the same way menstrual hygiene is also a crucial part in the women's life to prevent a lot of hazards such as infection in the reproductive and urinary tracts. In India the hygienic practices followed are use of sanitary napkins, cloths, tampons and now menstrual cups. In the modern concept, use of menstrual cups is considered the most eco-friendly menstrual hygiene practice. But, the attitude of women in rural and urban communities differs from each other.

Paria, B., Bhattacharyya, A., & Das, S. (2014).Menstruation, a natural process for females, can face societal stigma as unclean. The study aimed to compare menstrual hygiene perceptions among rural and urban adolescent girls. Conducted in South 24 Parganas, West Bengal, the research involved 541 girls aged 13-18. Findings showed only 37.52% knew about menstruation before menarche, with significant urban-rural awareness differences. Urban (36%) and rural (54.88%) girls often used homemade pads, with varying genitalia cleaning practices. The study highlighted better hygienic practices in urban areas, emphasizing the need for education to improve hygiene habits and challenge traditional menstrual beliefs and restrictions.

Sudevan Devan et al,. (2022). The study conducted in an urban area of South Kerala aimed to explore knowledge, attitudes, and practices related to menstrual cup use among females of reproductive age. Data analysis revealed that lack of knowledge and fear of insertion were significant barriers to trying menstrual cups. While a majority of participants were aware of menstrual cups, only a small percentage had actually used them. Factors such as age, education, socioeconomic status, and marital status influenced knowledge levels about menstrual cups. These findings highlight the importance of addressing misconceptions and concerns to promote wider acceptance and adoption of menstrual cups among women in the reproductive age group.

PROBLEM STATEMENT

A comparative study to assess the attitude towards use of menstrual cups among women of rural and urban communities in Mangalore, Karnataka state in India.

OBJECTIVES OF THE STUDY

1. To assess the level of attitude towards use of menstrual cup among women of rural and urban communities of Mangalore in Karnataka state.
2. To compare the attitude towards use of menstrual cup among women of rural and urban communities of Mangalore in Karnataka state.

HYPOTHESIS

H1: There will be significant difference between the levels of attitude towards use of menstrual cup among women of rural and urban communities.

METHODOLOGY

An evaluative research approach was employed to compare the attitudes towards menstrual cup usage among women in urban and rural communities in Mangalore. A total of 60 participants were selected through convenient sampling, with an equal split of 30 individuals from urban areas and 30 from rural settings. The data collection process involved the administration of an attitude scale specifically developed by the researcher to gauge the participants' perceptions towards menstrual cups.

The validity of the attitude scale utilized in this study was assessed, yielding a validity coefficient of r = 0.78. This coefficient indicates the extent to which the attitude scale accurately measures the intended constructs, ensuring the reliability and effectiveness of the tool in capturing the participants' attitudes towards menstrual cup usage. By employing this methodological approach, the study aims to provide a comprehensive comparison of the attitudes prevalent in urban and rural women towards adopting menstrual cups, offering valuable insights into the factors influencing their acceptance of this eco-friendly menstrual hygiene product in the context of Mangalore.

RESULTS AND DISCUSSION:

Graph - 1: Age of study-participants

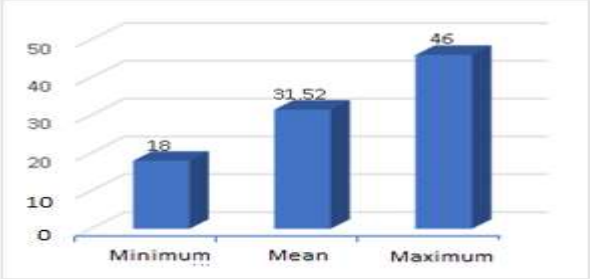

Table - 1: Age of study participants

Age	**Minimum**	18 years
	Mean	31.52 ± 7.7
	Maximum	46 years

It was found that the mean age of study-participants was 31.52 years with a minimum age of 18 years and maximum age of 46 years.

Graph - 2: Mean attitude scores of participants according to type of family

Table - 2: Comparison of mean attitude scores of participants according to type of family

Family type	Number	Mean	S. D.	F	P value
Nuclear Family	45	3.19	0.44	2.51	P = 0.09 NS
Joint Family	13	2.90	0.41		
Any Other	2	3.40	0.10		

SD - standard deviation; NS - not significant using One-way ANOVA test

It was found that participants from "any other" had a higher attitude score than participants from nuclear families with least scores among participants from joint families. However, the mean difference between the types of families was not statistically significant (P = 0.09).

Graph - 3: Mean attitude scores of participants according to education

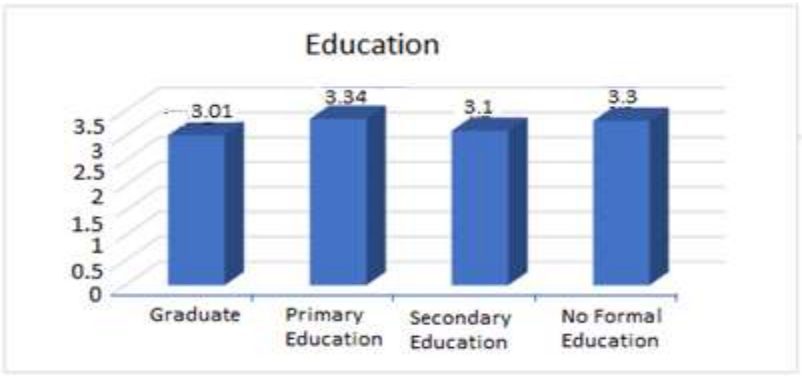

Table - 3: Comparison of mean attitude scores of participants according to education

Level of Education	Number	Mean	SD	F	P value
Graduate	21	3.01	0.39	1.73	P = 0.17 NS
Primary Education	14	3.34	0.43		
Secondary Education	22	3.10	0.45		
No formal Education	3	3.30	0.70		

SD-standard deviation; NS-not significant using One-way ANOVA test

It was found that participants with primary education and those 'without any formal education' had a higher attitude score than participants who were graduates and with secondary education. However, the mean difference between levels of education was not statistically significant (P = 0.17).

Graph - 4: Mean attitude scores of participants according to occupation

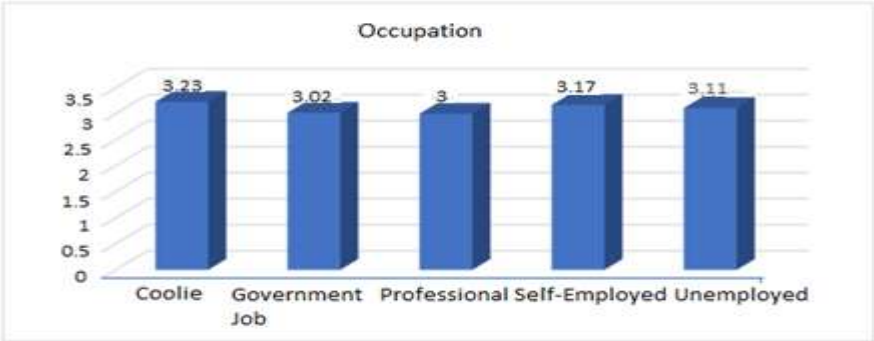

Table - 4: Comparison of mean attitude scores of participants according to occupation

Occupation	Number	Mean	SD	F	P value
Coolie	17	3.23	0.51	0.461	P = 0.76 NS
Government Job	5	3.02	0.38		
Professional	8	3.00	0.43		
Self-Employed	21	3.17	0.45		
Unemployed	9	3.11	0.38		

SD-standard deviation; NS-not significant using One-way ANOVA test

It was found that all participants with different occupations had similar attitude scores. The mean difference was not statistically significant (P = 0.76). In other words, there was no association between occupation and the use of menstrual cups.

Table 5: Comparison of mean attitude scores of participants according to religion

Religion	Number	Mean	S. D.	F	P value
Hindu	28	3.19	0.46	0.271	P = 0.76 NS
Muslim	17	3.10	0.47		
Christian	15	3.11	0.41		

SD-standard deviation; NS-not significant using One-way ANOVA test

It was found that participants from different religious backgrounds had similar attitude scores. The mean difference was not statistically significant (P = 0.76). In other words, there was no association between religion and the use of menstrual cups.

Table - 6: Comparison of mean attitude scores of participants according to marital status

Marital Status	Number	Mean	S. D.	F	P value
Married	28	3.00	0.47	0.25	P = 0.08 NS
Unmarried	17	3.30	0.38		
Any other	15	3.28	0.23		

SD-standard deviation; NS-not significant using One-way ANOVA test

It was found that participants who were unmarried and others had a marginally higher attitude scores than participants who were married. However, the mean difference between types of marital status was not statistically significant (P = 0.08).

Table - 7: Comparison of mean attitude scores of study-participants according to income

Level of Income	Number	Mean	SD	F	P value
1000 - 5000	18	3.30	0.39	0.934	P = 0.43 NS
5001 - 15000	21	3.06	0.43		
Above 15000	12	3.09	0.45		
Below 20000	9	3.11	0.70		

SD-standard deviation; NS-not significant using One-way ANOVA test

It was found that participants earning between 1000 – 5000 per month had a higher attitude score than participants who were earning more than 5000 per month. However, the mean difference of attitude scores between different income brackets was not statistically significant (P = 0.43).

Table - 8: Comparison of mean attitude scores of participants according to residence

Residence	Number	Mean	S. D.	t	P value
Rural	30	3.12	0.43	-0.342	P = 0.73 NS
Urban	30	3.16	0.46		

SD-standard deviation; NS-not significant using unpaired t-test

It was found that participants residing in rural and urban areas had similar attitude scores. The mean difference was not statistically significant (P = 0.73). In other words, there was no association between the area of residence and the use of menstrual cups.

Table - 9: Comparison of mean attitude scores of participants according to previous knowledge

Previous knowledge	Number	Mean	S. D.	t	P value
Yes	30	3.14	0.44	0.1	P = 0.92 NS
No	30	3.13	0.48		

SD-standard deviation; NS-not significant using unpaired t-test

It was found that similar attitude scores were found among participants irrespective of any previous knowledge about menstrual cups. The mean difference was not statistically significant (P = 0.92). In other words, there was no association between any prior knowledge and the use of menstrual cups.

Table 10: Comparison of mean attitude scores of participants according to the type of napkin used

Type of sanitary napkin using	Number	Mean	S. D.	t	P value
Cloth	5	3.30	0.58	0.75	P = 0.45 NS
Pad	55	3.13	0.43		

SD-standard deviation; NS-not significant using Welch t-test

It was found that participants who were using cloth napkins had slightly higher attitude scores than participants who were using sanitary pads. However, the mean difference between the groups was not statistically significant (P = 0.45).

Interestingly, participants from "any other" family structures exhibited higher attitude scores towards menstrual cup use compared to those from nuclear families, while individuals from joint families had the lowest scores. However, the analysis indicated that the mean difference in attitude scores across family types was not statistically significant (P = 0.09). Furthermore, participants with primary education and those with no formal education displayed more favourable attitudes towards menstrual cups compared to graduates and individuals with secondary education. Despite this trend, the mean difference in attitude scores among different education levels was not statistically significant (P = 0.17). Occupation and religious background did not show any significant association with attitude scores towards menstrual cup use, as participants from various occupational backgrounds and religious affiliations exhibited similar attitudes. Regarding marital status, unmarried participants and those classified as "others" demonstrated slightly higher attitude scores than married individuals. Findings suggest that factors such as family structure, education level, occupation, religion, and marital status may not significantly influence the attitudes of urban and rural women in Mangalore towards the adoption of menstrual cups. The study findings revealed that participants earning between 1000 – 5000 per month exhibited a more positive attitude towards menstrual cup use compared to those earning more than 5000 per month. Despite this observation, the mean difference in attitude scores between the different income brackets was not statistically significant (P = 0.43). Study suggested that the location of residence does not play a significant role in influencing attitudes towards menstrual cup adoption. Interestingly, participants' prior knowledge about menstrual cups did not significantly impact their attitudes, as individuals with and without previous knowledge showed similar attitude scores. Furthermore, participants using cloth napkins displayed slightly higher attitude scores compared to those using sanitary pads. It also suggested that the type of menstrual hygiene product currently used by participants may not strongly affect their attitudes towards adopting menstrual cups.

CONCLUSION

In conclusion, the study results indicate that factors such as income level, area of residence, prior knowledge about menstrual cups, and current menstrual hygiene product used do not significantly influence attitudes towards menstrual cup utilization among participants. Despite some observed differences in attitude scores among certain groups, these variations were not statistically significant. This suggests that attitudes towards menstrual cup usage may be influenced by other factors not explored in the study.

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