

# Efficacy of Focused Group Discussion on Knowledge and Practices Related to Menstruation among Adolescent Girls of Rural Areas of Rhtc of a Medical College: An Interventional Study

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## Abstract

**Context:** Learning about menstrual hygiene is vital part of health education for adolescent girls so that they can continue to work and maintain hygienic habits throughout their adult life. **Aim:** The aim is to study the efficacy of focused group discussion (FGD) in comparison to didactic lecture method (DL) on knowledge and practices related to menstruation among adolescent girls of rural areas. **Materials and Methods:** Community-based interventional study was carried out among 260 adolescent girls. Knowledge and practice were assessed with the help of questionnaire preintervention. During intervention, 130 girls in DL group were given DL and 130 girls in FGD received FGD. After 2 months, all 260 girls were contacted. Their knowledge and practices were assessed using same questionnaire. **Statistical Analysis:** Yates corrected Chi-square and Student's *t*-test was used. **Results:** Both methods were equally effective in increasing mean knowledge and practices score ( $P < 0.05$ ). On comparison of mean postintervention scores between the two groups for knowledge, the FGD method was found to be superior ( $P < 0.05$ ) but not for practices ( $P > 0.05$ ). **Conclusion:** FGD was more effective than DL method for knowledge related to menstruation but not for practices.

**Keywords:** Adolescent girls, knowledge, menstruation, practices, rural areas

## INTRODUCTION

“Adolescence is the period of transition from childhood to adulthood. The WHO has defined adolescence as the age group of 10–19 years.”<sup>[1]</sup>

The most important change that occurs in a girl's life is the initiation of the menstruation. Usually, it is seen in the age of 11–15 years. Lack of proper practices during menstruation and poor hygienic practices affect the health status of the adolescent girls and may lead to infection of the urinary tract, pain in abdomen, vaginal scabies, etc., Not only this, the poor health as a result of this may lead to school absenteeism and future consequences like pregnancy complications.<sup>[2,3]</sup>

It has been observed that the rate of use of sanitary pad was only 12% among Indian women. The most common reason was being the cost. However, the use is universal in high income countries. As per the Government of India initiative of 2011, the pack of six sanitary pads was made available at Rs. 6 and ASHA was made to distribute this one.<sup>[4]</sup>

“62% of young women use cloth for menstrual protection” this was the headline in Times of India Newspaper on January 23, 2018. This news was based on the National Family Health Survey – IV survey conducted by the Government of India.

Hence, even today, it is important to study this health issue and make the community as well as adolescent girls aware about this.

Usual practice of health education is didactic lectures (DLs) for any health issues. The community members are given knowledge by DL method. However, this method has many drawbacks compared to focused group discussion (FGD). FGD

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attempts to bring about a change in the behavior of community members compared to DLs. There is an active involvement of members in FGD compared to DL; which is usually one sided.

Hence, this study attempts to study the efficacy of FGD in comparison to lecture method of health education in terms of change in knowledge and practices related to menstruation among adolescent girls in rural areas. Thus, we wanted to demonstrate that FGD is a better method of health education (which is routinely not practiced) compared to DL (which is commonly practiced) in bringing about the change in the knowledge and practices related to menstruation among adolescent girls.

## MATERIALS AND METHODS

A community-based interventional study was carried out at rural field practice area of the Department of Community Medicine among 260 adolescent girls of 10–19 years residing in the study area from November 2017 to July 2018. Adolescent girls selected for the present study based on sample size and inclusion and exclusion criteria formed the study population.

Adolescent girls of age 10–19 years who had menarche at least 1 year before, unmarried adolescent girls who are willing to participate and able to understand the questions were included in the study. Adolescent girls who have lost to follow-up and girls who were ill at the time of survey were excluded from the study.

Sample size formula for intervention studies was applied.<sup>[5]</sup> Sample size of 97 was calculated assuming 5% type I error, 80% power, 20% increase in awareness based on the data from the previous study<sup>[6]</sup> from 35% to 55% after intervention. It was rounded to 100. A nonresponse rate of 30% was added to this due to loss to follow-up as well as nonresponse. Thus, each group had 130 sample size.

First, we enlisted the total number of adolescent girls residing in the rural field practice area of our college under the Department of Community Medicine. This list was obtained from the adolescent girls register of Rural Health Training Center (RHTC) of our college.

From this list, based on inclusion and exclusion criteria of the present study, a final list of adolescent girls was prepared and from this final list, 260 adolescent girls were selected using simple random sampling. These 260 adolescent girls were randomly allocated to two groups of 130 each.

Institutional Ethics Committee permission was obtained. Informed consent was obtained from the parents of every girl.

The selected (all 260) adolescent girls were contacted and their baseline information was collected in the predesigned study questionnaire. They were asked to report to RHTC on a fixed day.

After collecting baseline information, the girls were divided into two groups randomly. One hundred and thirty girls were in the control group, i.e. DL group designated as DL group. Other 130 girls were in intervention group, i.e. FGD group designated as FGD group.

Before any kind of intervention, knowledge and practice of all 260 girls was assessed with the help of the study questionnaire.

One hundred and thirty girls in DL group were given a DL with the help of power point at seminar hall of RHTC telling in detail about menstruation covering all aspects.

One hundred and thirty girls in FGD group were divided into small groups of 30–40 and they were asked to report to RHTC on fixed days for FGD. All basic principles of FGD were followed.

After 2 months, all 260 girls were contacted. Their knowledge and practices were assessed using the same study questionnaire.

However in the FGD group, 46 girls lost to follow-up. Even after repeated attempts, they could not be contacted. Hence, in the analysis, they were not included.

## Statistical analysis

The data were entered into the Microsoft Excel Worksheet. If the girls had correct knowledge of one question she was given a score of 1 or otherwise 0. Thus, for each girl, total score for knowledge and practices was calculated. Then, the mean knowledge score before intervention and after intervention was compared using Student's *t*-test for both the groups. Same procedure was followed for practice questions also. Value of  $P < 0.05$  was considered as statistically significant.

## RESULTS

Table 1 shows comparison of baseline characteristics in two groups. Both the groups were comparable in terms of baseline characteristics such as religion, father's education, mother's education, type of family, mean age, and mean age at menarche.

Table 2 shows the efficacy of FGD over lecture method on knowledge related to menstruation. The mean knowledge score in DL group before intervention was 9.38 which increased significantly to 11.39 ( $P < 0.05$ ) after intervention. The mean knowledge score in FGD group before intervention was 9.78 which increased significantly to 11.87 ( $P < 0.05$ ) after intervention. The mean knowledge score before intervention in DL group was 9.38 and the FGD group was 9.78 and this difference was statistically not significant ( $P > 0.05$ ). However, after intervention, the mean knowledge score in DL group was significantly less compared to FGD group, i.e. 11.29 versus 11.87 ( $P < 0.05$ ).

Table 3 shows the efficacy of FGD over lecture method on practices related to menstruation. The mean practices score in DL group before intervention was 7.62 which increased significantly to 8.62 ( $P < 0.05$ ) after intervention. The mean practices score in FGD group before intervention was 7.73 which increased significantly to 8.46 ( $P < 0.05$ ) after intervention. The mean practices score before intervention in DL group was 7.62, and the FGD group was 7.73, and this difference was not statistically significant ( $P > 0.05$ ). After intervention also the mean practices score in DL group was significantly not different compared to FGD group, i.e. 8.62 versus 8.46 ( $P > 0.05$ ).

**Table 1: Comparison of baseline characteristics in two groups**

Baseline characteristics	DL group (%)	FGD group (%)	Yates corrected ( $\chi^2$ )	P
Religion				
Hindu	113 (86.9)	112 (86.2)	0.03302	0.4279
Other	17 (13.1)	18 (13.8)		
Father's education				
Illiterate	67 (51.5)	78 (60)	1.559	0.1061
Literate	63 (48.5)	52 (40)		
Mother's education				
Illiterate	75 (57.7)	80 (61.5)	0.2556	0.3066
Literate	55 (42.3)	50 (38.5)		
Type of family				
Nuclear	122 (93.8)	115 (88.5)	1.717	0.09516
Other	8 (6.2)	15 (11.5)		
Baseline characteristics	DL group (mean+2SD)	FGD group (mean+2SD)	T	P
Mean age (years)	13.95±0.98	14.12±1.14	1.3024	0.1939
Mean age at menarche (years)	12.46±0.98	12.34±1.08	0.9328	0.3490

DL: Didactic lecture, FGD: Focused group discussion

**Table 2: Efficacy of focused group discussion over didactic lecture method on knowledge related to menstruation**

Variable	n	Mean±SD	T	P
<b>Change in knowledge score before and after intervention in DL group</b>				
Preintervention score of knowledge	130	9.38±2.10	7.4029	<0.0001
Postintervention score of knowledge	130	11.29±2.06		
<b>Change in knowledge score before and after intervention in FGD group</b>				
Preintervention score of knowledge	130	9.78±1.89	7.76893	<0.0001
Postintervention score of knowledge	130	11.87±1.97		
<b>Comparison of knowledge score in two groups before intervention</b>				
DL group	130	9.38±2.10	1.6143	0.1077
FGD group	130	9.78±1.89		
<b>Comparison of knowledge score in two groups after intervention</b>				
DL group	130	11.29±2.06	2.0458	0.045
FGD group	130	11.87±1.97		

DL: Didactic lecture, FGD: Focused group discussion, SD: Standard deviation

Thus, both the methods of health education, i.e. DL and FGD were found to improve knowledge and practice related behavior among adolescent girls. In terms of knowledge, FGD method was more effective in improving knowledge compared to DL method, but in terms of practice related behavior both methods were comparable.

## DISCUSSION

There was significant improvement in the knowledge after intervention in both the groups. Similarly, there was significant improvement in the practices score after intervention in both the groups. Thus, both the methods of health education were effective in improving the knowledge and practices of the adolescent girls.

On comparing the postintervention scores in two groups, it was found that the mean knowledge score was significantly more in FGD group compared to DL group, but in case of practices scores, both groups were comparable.

Nemade *et al.*<sup>[1]</sup> observed that the 51.3% girls used only water to wash the cloth used as pad during menstrual periods, while 4.3% sun-dried it. Final disposal was done by burning by 51.3% of the girls. The authors gave health education to all girls studied and found a significant improvement in the practices.

Haque *et al.*<sup>[2]</sup> noted that the knowledge increased from 51% to 82.4% after intervention of giving health education. Overall proper practices increased from 28.8% to 88.9%. The use of sanitary pads increased by 22.4% after health education; changing of pads increased by 68.8%, proper disposal increased by 25.5%, and proportion of girls cleaning genitalia increased by 19.2%. The girls also reported fewer complications after health education.

Dongre *et al.*<sup>[6]</sup> reported that the awareness about menstruation increased from 35% to 55% after the health education was given. The use of readymade pads also increased from 5% to 25% and also the cloth reuse decreased from 85% to 57%.

**Table 3: Efficacy of focused group discussion over lecture method on practices related to menstruation**

Variable	n	Mean±SD	T	P
<b>Change in practices score before and after intervention in DL group</b>				
Preintervention score of practices	130	7.62±1.33	6.4847	<0.0001
Postintervention score of practices	130	8.62±1.15		
<b>Change in practices score before and after intervention in the FGD group</b>				
Preintervention score of practices	130	7.73±1.19	4.7741	<0.0001
Postintervention score of practices	130	8.46±0.97		
<b>Comparison of practices score in two groups before intervention</b>				
DL group	130	7.62±1.33	0.7027	0.4828
FGD group	130	7.73±1.19		
<b>Comparison of practices score in two groups after intervention</b>				
DL group	130	8.62±1.15	1.05525	0.2925
FGD group	130	8.46±0.97		

DL: Didactic lecture, FGD: Focused group discussion, SD: Standard deviation

Nagaraj and Konapur<sup>[7]</sup> noted in their study that the awareness level was only around 30%, but it increased significantly after they were given health education.

Abd Allah *et al.*<sup>[8]</sup> observed that washing of genitalia with soap and water was only seen among 43.3% of the girls which increased significantly after health education effect.

Aniebue *et al.*<sup>[9]</sup> found that the level of awareness regarding menstruation increased significantly after premenarcheal training to the adolescent girls.

Rao *et al.*<sup>[10]</sup> noted that the intervention was effective and there was a significant improvement in the overall knowledge.

Arora *et al.*<sup>[11]</sup> reported a significant improvement in the practice of washing genitalia from 24.8% to 39.6%.

Thus, all the studies support the observation that health education is effective in increasing the overall knowledge and practices related to menstrual hygiene and recommend that all adolescent girls should make aware about the best menstrual health management practices.

## CONCLUSION

FGD was more effective than DL method for knowledge related to menstruation but not for practices. The low effectiveness of FGD in change in practices may be due to the other social and family factors which influence the overall practices. This finding stresses the importance that not only adolescent girls but also the family members as well as society (social leaders who influence the society and families) should be involved in the health education programs for appropriate change related to the hygienic practices of menstrual health management.

Both methods of health education were effective in increasing the knowledge and practices score postintervention. The knowledge and practices among the adolescent girls is poor. Hence, teachers/Anganwadi workers/nearby medical college faculty should be trained to give special DLs and also arrange FGDs regularly to increase the knowledge and correct practices related to menstruation among the adolescent girls.

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## Conflicts of interest

There are no conflicts of interest.

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