

Studying effectiveness of flipbook on hygiene during menstruation in terms of gain in knowledge by rural women

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■ **ABSTRACT** : The study was conducted in randomly selected Girwa Panchayat Samiti of Udaipur district of Rajasthan state with a sample of 50 rural women to study effectiveness of flipbook in terms of gain in knowledge by rural women. Findings revealed that, significant difference was found in pre and post-scores of overall knowledge of the respondents as the calculated t value (29.30) was highly significant. Overall knowledge of the respondents after their exposure to flipbook increased from 36.96 to 94.74 per cent with the gain of 57.76 per cent. In six components of hygiene during menstruation, as the calculated t values were found to be highly significant at .01 and .05 per cent level of significance and one component, 'managing menstruation and products used during menstruation' was non-significant. Post-test scores indicate that all the respondents shifted towards good knowledge category after exposure to flipbook in all the components of hygiene during menstruation with mean per cent scores ranged 89 to 98.5.

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Menstruation is a normal physiological process indicating beginning of reproductive life but sometimes it is considered as unclean phenomenon in the Indian society. Insufficient, incorrect information regarding menstruation is often a cause of unnecessary restrictions in the daily normal activities of the menstruating girls creating various psychological issues. Besides, the lack of knowledge and awareness also lead to some poor personal hygienic practices during menstruation leading to many reproductive tract infections. Menstrual hygiene depends upon the

educational, socio-economic and cultural statuses of family. School curriculum also have some role in menstrual health.

Poor menstrual hygiene causes great impact in increased vulnerability to reproductive tract infections (RTI). Currently millions of women sufferers from RTI and infection is transmitted to the offspring. Women having knowledge regarding menstrual hygiene are less vulnerable to RTI and its consequences. Therefore, increased knowledge about menstruation from adolescent period help in decreased suffering of millions of women.

The women/girls should be educated about significance of menstruation and development of secondary sexual characteristics, selection of sanitary menstrual absorbent and its proper disposal. In such conditions there is dearth of appropriate aid especially in hygiene during menstruation with the specific features suited to the requirements and understanding level of the rural women which can be used as a ready reference by the functionaries of different organizations. Therefore, the present study was planned to field test flipbook for its comprehension by rural women.

■ RESEARCH METHODS

The study was conducted in randomly selected Girwa Panchayat Samiti of Udaipur district of Rajasthan state. A sample of 50 rural women was taken from randomly selected one village *i.e.* Kharbadiya of Girwa Panchayat Samiti. Pre and post-test experimental design was used in which pre-test was conducted to know existing knowledge of the rural women regarding “Hygiene during menstruation”, after pre-test, the respondents were exposed to the flipbook. In this, each flip chart of the flipbook was explained to them covering every visual and message in it. Immediately after exposure, the knowledge test was administered to the entire sample in order to know the gain in knowledge due to their exposure to flip book. For collection of data personal interview technique was used.

■ RESEARCH FINDINGS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Background information of the respondents:

More than 40 per cent respondents were in the age group of 20-28 years, 30 per cent were in the age group of 29-37 and 25 per cent were of 38-45 years. Majority of the respondents (85%) belonged to other backward caste, 11 per cent respondents were from schedule tribe

and rest of them (4%) belonged to general category. Majority of the respondents (91%) were married and only 9 per cent were unmarried. More than 40 per cent of the respondents were illiterate, 19 per cent of the respondents were educated upto high school, graduate and above (18%), upto middle school (10%) and rest of the respondents were educated primary upto school and can read and write. Majority of the respondents (80%) had farming as their main family occupation.

Effectiveness of flipbook in terms of gain in knowledge by rural women:

Knowledge gain through flip book by the respondents:

Perusal of the Table 1 indicates that majority of the respondents (54%) exhibited poor knowledge (less than 33.33%), 42 per cent exhibited average knowledge and only 2 per cent had good knowledge at initial stage in all the components of hygiene during menstruation. But significant improvement was observed in the post-knowledge scores of the respondents after their exposure to flipbook. All the respondents were found in good knowledge category with score range of 66.66 to 100 per cent. Bishnoi (2006) revealed that there was significance difference in the knowledge of rural women at pre and post- exposure stage for all the messages. Sufficient gain in knowledge was recorded for all the messages *viz.*, reproductive and child health (mean score =3.42), safe drinking water and sanitation (mean score=3.00) and household technologies (mean score =3.05). Dudi and Singh (2008) reported that after the exposure of flash card, flipbook and chart, 60 per cent respondents were found in the medium knowledge category with 79.7MPS and 26 per cent respondents were in low knowledge category with MPS of 57.3 while 14 per cent respondents were in high knowledge category in aspect of basics of foods and nutrition. Rowe and Llic (2009) reported that 62 per cent of participants agreed, or strongly agreed, with the statement that posters are a good medium for knowledge transfer in the teaching

Table 1 : Distribution of respondents by their knowledge before and after exposure to flip book on hygiene during menstruation (n=50)					
Category	Pre- knowledge		Post- knowledge		
	f	%	f	%	
Good (66.66% - 100%)	2	4	50	100	
Average (33.33% - 66.66%)	21	42	0	0	
Poor (Less than 33.33%)	27	54	0	0	

learning environment. Malleshappa and Krishna (2011) found that, after exposure to video films, charts, posters, a significant increase in overall knowledge regarding menstrual cycle, ovulation, fertilization and pregnancy by 44.5 per cent was noted knowledge regarding contraception improved remarkably from 33.7 per cent to 97.4 per cent. Kotwal *et al.* (2014) found that the knowledge of girls regarding health aspects improved significantly after intervention. Kumari and Laxmikant (2015) found as a result of exposure of training package (Visuals aids like flash card, leaflet, infant cloths chart) as the pre-test score was increased 47.81 to 81.45 per cent with the gain in knowledge of about 33.64 per cent. Rahman *et al.* (2016) reported that in improving maternal, neonatal and child survival, behaviour change communication interventions are well accepted by the community people. According to Tavakoli and Esmae (2013) use of print media in classroom to teach pre-reading skills and reading skills has a positive effect on reading ability development.

Overall gain in knowledge by the respondents:

Paired t-test was calculated to find out the difference in the pre and post-knowledge scores of the respondents. Data presented in Table 2 indicates that there was significant difference in the pre and post-test scores of overall knowledge of the respondents as the calculated t value (29.30) was highly significant.

Data reveals that overall initial knowledge of the respondents about hygiene during menstruation was poor (36.96 MPS). But after their exposure to flipbook, the post test scores raised to 94.72 per cent with the gain of 57.76 per cent. Study by Sharma (2009) revealed that overall knowledge of the respondent after their exposure to flipbook increased from 5.27 to 66.05 per cent with the gain of 60.78 per cent. Sarani (2012) revealed that by using visual aids in the language class, the students in the experimental group could significantly enhance their ability to comprehend the texts and extract the main ideas with more ease and comfort. The study by Hunshal *et*

al. (2010) recommended that the intervention programme benefited the adolescent girls in enhancing their knowledge about reproductive health. According to Barathalakshmi *et al.* (2014) only 28.2 per cent girls were aware of menstruation before menarche. More than three fourth of the girls were not aware of the cause and the source of bleeding. Only 49.5 per cent girls knew that practicing good hygiene during menstruation would prevent reproductive tract infections. Borker *et al.* (2014) revealed that 29 per cent of the women opined that they were not aware regarding the method of its disposal and another 29 per cent opined that they did not like it. Most of the women (68%) of the study population reuse their cloth during their periods and 43.7 per cent of the women are use soap and 31 per cent of women were using dettol for cleaning the cloth before re-use. Paria *et al.* (2014) reported that only 36 per cent girls in the urban and 54.9 per cent girls in the rural area used homemade sanitary pads and reused the same in the subsequent period. Satisfactory cleaning of external genitalia was practiced by only 47.7 per cent of the urban and 37.9 per cent of the rural girls. Wanisk *et al.* (2015) revealed in their study that the dysmenorrhea was the most common menstrual complaint reported by 62.3 per cent girls, 33.5 per cent girls have reported that they use sanitary pads during menstruation, 41.6 per cent girls have use of old clothes during menstruation and 21.8 per cent had irregular menstrual cycle. According to Kansal *et al.* (2016) only 31 per cent respondents were using sanitary pads during menstruation. Self-reported reproductive tract infection (RTI) was observed more in respondents not maintaining hygienic practices (6.6%) as compared to those maintaining hygiene (2.6%). Maji (2016) reported that majority of the respondents had knowledge about the use of sanitary pads but still now 34 per cent of them use old cloths and use those cloths. All of them practices one or more cultural taboos and restrictions related to menstruation. Patel and Patel (2016) revealed that Majority of the respondents (86.70%) girls use sanitary napkins whereas 13.3 per cent girls use clothes and reuse

Table 2 : Overall significance of difference in knowledge scores of respondents before and after exposure to flip book

Sr.No.	Items	Mean per cent scores	t- value
1.	Pre-test scores	36.96	
2.	Post-test scores	94.72	29.30 * *
3.	Gain in knowledge	57.76	

** indicate significance of value at P=0.01

them. Most of the girls perceive that sanitary napkin is comfortable and cause adequate absorption but having disadvantage of an expensive and not being easily available at all places. Joshi and Gir (2017) found that only 13.3 per cent respondents used sanitary pads as an absorbent. As many as 45.5 per cent of adolescent girls adopted hygienic practices during menstruation such as bathing, cleaning, genitals etc. Which increased 41 per cent to 83.3 per cent after intervention.

Component wise gain in knowledge by the respondents:

Perusal of Table 3 indicates that there was a significant difference in the knowledge of the respondents in six components of hygiene during menstruation, as the calculated t values were found to be highly significant at .01 and .05 per cent level of significance and one component 'managing menstruation and products used during menstruation' was non-significant.

Table further reveals majority of the respondents (80.32%) exhibited good knowledge in the component 'managing menstruation and products used during menstruation' followed by 'concept of menstruation and menstruation cycle (44.14%)', 'benefits of sanitary napkin (27%)', 'problems during menstruation and coping with discomfort (23%) and' hygiene during menstruation and ways of disposal the sanitary napkin (18.75%). The least initial knowledge was found in the components 'availability of vending machine in school and colleges' and 'nutrition during menstruation' with mean per cent scores 2.0 and 8.66.

Post-test scores indicates that the highest knowledge gain was found in the component 'availability of vending machine in school and colleges' with mean per cent score

87 followed by the component 'nutrition during menstruation' (84.67 MPS). In rest of the components *i.e.* problems during menstruation and coping with discomfort, benefits of sanitary napkin, concept of menstruation and menstruation cycle and hygiene during menstruation and ways of disposal the sanitary napkin, the knowledge gain was ranging from mean per cent scores 46.14 to 76.5 where as in one component, 'managing menstruation and products used during menstruation' the MPS was found only 18, which was lesser in comprehension to other component.

Santra (2017) found that majority of the women used only sanitary pad and 30 per cent used only cloth pieces whereas 5 per cent used both pad and cloth piece. Dhingra *et al.* (2009) reported that most common source of information about menstruation for the majority (83%) of the sample girls were friends. The level of personal hygiene and management of menstruation was found to be quite unsatisfactory, 98 per cent of the girls believed that there should be no regular bath during menstrual cycle. According to Nagar and Aimol (2010) respondents had an average level of awareness of menstrual aspects. Girls did not know about the meaning of menstruation and associated it with bad/unclean blood. Knowledge of hygienic practices during these times was found to be good. This study shows that 99 (36%) girls in the urban and 146 (54.88%) girls in the rural area were using homemade sanitary pads and reused the same in the subsequent period which almost corroborates studies in Nepal by Adhikari *et al.* (2007) found 74.8 per cent of the girls used homemade sanitary pads and 24 per cent used ready-made sanitary pads. So in this study, the use of sanitary pads was higher than those observed in other studies. A study conducted among schoolgirls in Egypt by El-Gilany *et al.* (2005) observed mass media were

Sr. No.	Components	Pre-test (MPS)	Post-test (MPS)	Gain (MPS)	t-value
1.	Concept of menstruation and menstruation cycle	44.14	90.28	46.14	3.24 *
2.	Managing menstruation and products used during menstruation	80.32	98.32	18	1.59 ^{NS}
3.	Benefits of sanitary napkin	27	95	68	6.8 **
4.	Availability of vending machine in school and colleges	2.0	89	87	87 **
5.	Hygiene during menstruation and ways of disposal the sanitary napkin	18.75	95.25	76.5	24.06 **
6.	Problems during menstruation and coping with discomfort	23	98.5	75.5	5.06 **
7.	Nutrition during menstruation	8.66	93.33	84.67	35.22 **

* and ** indicate significance of values at P=0.05 and 0.01, respectively

NS= Non-significant

the main source of information about menstrual hygiene, followed by mothers.

Conclusion:

Thus, it could be concluded that the comprehension of flipbook was found to be good and the developed flipbook can be utilized by the various government, non-government and welfare organizations to generate awareness about the hygiene during menstruation among rural and tribal women.

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