

Effectiveness of Audio Drama on Menstrual Hygiene and Management of Minor Ailments of Menstruation Upon Knowledge and Practice Among Visually Challenged Girls

Jeyanthi P.,
M.Sc.(N) student,
Apollo College of Nursing,

Dr. Vijayalakshmi K.,
Professor and research coordinator,
Apollo College of Nursing, Chennai.

Dhanalakshmi V., Reader,
Apollo College of Nursing

Dr. LathaVenkatesan,
Professor and Principal,
Apollo College of Nursing, Chennai.

Abstract:- Every year approximately 10 % of female worldwide are exposed to genital infections including urinary tract infections and bacterial vaginosis, and 75 % of female have a history of a genital infection. Specifically, the common risk factors for vaginal infections include is poor hygiene (both perineal and menstrual hygiene). Visually impaired girl's needs have been widely and deeply neglected or not being properly addressed. Hence, specific measures should be taken for maintaining the better education on reproductive health among visually impaired. This study was conducted to assess the effectiveness of audio drama on menstrual hygiene and management of minor ailments of menstruation upon knowledge and practice among visually challenged girls in selected schools, Chennai. Study was conducted using true-experimental research design among 30 control and 30 experimental students who are selected using total enumerative sampling technique. Data was collected by questionnaire method using predetermined and pretested tools such as demographic variable proforma, menstrual variable proforma, Braille structured questionnaires to assess the knowledge and check list to assess the practice on menstrual hygiene and management of minor ailments of menstruation. Results revealed that the difference in mean and standard deviation of knowledge in control group between pretest vs posttest I (M=9.83, 9.77 SD=1.54,1.52), pretest vs posttest II (M=9.83, 9.77 SD=1.54,1.52) and posttest I vs posttest II (M=9.77,N 9.77 SD=1.52,1.52) was not statistically significant, whereas in the experimental group the difference in mean and standard deviation of knowledge between pretest vs posttest I (M=9.73, 18.13 SD=1.59, 1.45) and pretest vs posttest II (M=9.73, 18 SD=1.59, 1.34) was statistically significant ($p < 0.001$). Regarding practice, The difference in mean and standard deviation in the control group between pretest vs posttest I (M=5.3, 5.4 SD= 1.0, 1.1), pretest vs posttest II (M=5.3, 5.4 SD= 1.0, 1.1) and posttest I vs posttest II (M=5.4, 5.4 SD= 1.1, 1.1) was not statistically significant, whereas in the experimental group the difference in mean and standard deviation between pretest vs posttest I (M=5.31, 13.4 SD= 1.03, 0.48

) and pretest vs posttest II (M=5.31, 13.13 SD= 1.03, 2.36) was statistically significant ($p < 0.001$).

I. INTRODUCTION

“Imagine the life one has to live without seeing the beauty of the rising sun, beauty of the blooming flowers and even unable to see the face of his mother”. Eyes are the most precious organs in the human body used for viewing the world. So one has to face innumerable difficulties in the absence of vision.

With 7.8 million blind people in India, the country accounts for 20 per cent of the 39 million blind populations

across the globe (WHO, 2010). 3.2 lakhs people are from Tamilnadu and nearly 74,300 populations are taken care in chennai.

Little attention has been paid to the menstrual illness experience of visually challenged adolescents in literature. Nevertheless, a large majority of these people reach puberty and sexual maturity, just like normal adolescents.

Menstruation is also called monthly bleeding, menstrual period, menstrual course and period. The first menstruation usually comes between the ages of nine and sixteen, although it is normal to begin earlier or later. The first menstrual period is called the menarche. The first menstruation may begin before ovulation takes place (and ovulation may take place before the first menstruation). The menstruation flow is quite slow and gradual. The first periods are often very irregular. It is not uncommon to skip a month or to have periods close together. The length of periods varies from two days to a week. Gradually, a regular cycle will be established; but it is still quite normal and common during the teen years to have irregular periods. A great deal of women's and girls' scant knowledge is informed by peers and female family members.

Good hygienic practices such as the use of sanitary pads and adequate washing of the genital area are essential

during menstruation. Menstrual hygiene and management will directly contribute to the Millennium Development Goal (MDG)-2 on universal education and MDG -3 on gender equality and women empowerment. (MDG,2013).

Menstrual problems are common, and can be disruptive to a student's daily life and productivity. Dysmenorrhea, premenstrual syndrome and menstrual hygiene are leading contributors to the burden of disease borne by adolescent secondary school girls.

Adolescent girls constitute a vulnerable group not only with respect to their social status but also in relation to their health. The issue of menstrual hygiene was inadequately acknowledged and has not received proper attention among visually challenged girls. Thus, the consequences of reproductive tract infections are severe and may result in significant negative impact to adolescent's health including chronic pelvic pain, dysmenorrhea (painful periods) and in severe cases of infertility. Reproductive tract infections, which have become a silent epidemic that devastates adolescent's lives and closely related to poor menstrual hygiene.

The practice of good menstrual hygiene reduces the incidence of reproductive tract infection (RTI). In this sense, maintaining proper menstrual hygiene is important for wellbeing and development of healthy reproductive life among visually challenged girls.

➤ *Statement of the problem*

An experimental study to assess the effectiveness of audio drama on menstrual hygiene and management of minor ailments of menstruation upon knowledge and practice among visually challenged girls in selected schools, Chennai

II. OBJECTIVES OF THE STUDY

- To assess the level of knowledge and practice upon menstrual hygiene and management of minor ailments of menstruation among control and experimental group of visually challenged girls.
- To determine the effectiveness of audio drama on menstrual hygiene and management of minor ailments of menstruation by comparing the pretest and posttest knowledge and practice among control and experimental group of visually challenged girls.
- To associate the pretest and posttest of knowledge and practice on menstrual hygiene and management of minor ailments of menstruation with selected demographic variables and menstrual variables of experimental group of visually challenged girls.
- To find out the correlation between knowledge and practice on menstrual hygiene and management of minor ailments of menstruation in experimental group of visually challenged girls.

III. METHODOLOGY

True Experimental pretest and post-test research design was adopted for conducting this study at Little Flower Convent Hr.Sec.School for Visually Impaired, Nungambakkam, Chennai. 60 Visually challenged girls were selected using total enumerative sampling technique. Selected samples were allotted to control and experimental group randomly using odd-even number method. Questionnaire to assess the Awareness on Menstrual Hygiene and Check list to assess the Compliance on Menstrual Hygiene were developed by the investigator on the basis of the review of literature and expert's opinion.

Data was collected by using predetermined and pretested tools such as demographic variable proforma, menstrual variable proforma, Braille Method Structured Questionnaire and check list to assess the knowledge and practice on menstrual hygiene and management of minor ailments of menstruation were developed by the investigator on the basis of the review of literature and expert's opinion. Braille Method Structured Questionnaire which contains 25 MCQ items with 3 options (one right answer & 2 distractors) and each right answer was scored one. The scoring ranges from 0 to 25. The obtained score was converted into percentage and interpreted 75 to 100 Adequate Knowledge, 50-74 moderate Knowledge, Below 50 – Inadequate Knowledge. Check List on practice which contains 15 items and each right answer was scored one. The obtained score was converted into percentage and interpreted as 75 to 100 Good, 50-74 Average, Below 50 – poor.

After the pretest, Audio drama was given to experimental group at 3 times with interval of 1 day using auditory and kinaesthetic method of teaching by the researcher. Then the level of satisfaction regarding audio drama was assessed by using the satisfaction rating scale. Two consecutive assessments of knowledge and practice were made after audio drama on 7th day and an interval of one month. Collected data was entered and analyzed using appropriate descriptive and inferential statistics based on the objectives of the study.

IV. RESULTS

Demographic data revealed that majority of the visually challenged girls were 14 years old (56.67 %, 60 %) and Hindus (63.33 %, 60 %). Half of them were studying 8thstd and half of them were studying 9thstd (50 %, 50 %), all of them were residing in urban area (100 %, 100 %) and the majority of visually challenged girls have family monthly income was above 10000 (83.33%, 76.67 %). in control and experimental group respectively. there was no significant difference between control and experimental group with regard to demographic variables, indicating the homogeneity of the groups respectively.

Menstrual Variables reveals that half of the students of visually challenged girls was attained menarche between the age of 12-14 years (50 %, 50 %) and half of the students was

attained menarche between the age of 15-16 years (50 %, 50 %). All of them had a previous knowledge about menstruation (100%, 100%) and the source of information was their parents (100%, 100%), most of the students had irregular menstruation (76.67%, 73.33 %), and their duration of menstrual cycle was above 30 days (76.67%, 73.33 %), less than half of the students had between 5-7days menstrual flow (46.67%, 43.33%), All of them had minor disorders during menstruation (100%, 100%), Most of them had the experience of dysmenorrhea (63.33%, 63.33%) and back pain (70%, 63.33%) in control and experimental groups respectively. There was no significant difference between control and experimental group with regard to menstrual variables, indicating the homogeneity of the groups respectively.

The control and experimental group of students around half of them had moderate knowledge (53.33, 46.67%) and half of them had inadequate knowledge (46.67, 53.33%) in pretest. However, in the experimental group, most of the students had moderate knowledge (70%) and 30 % had adequate knowledge in posttest I and had moderate (76.67%) and adequate knowledge (23.33%) in posttest II.

The study findings revealed that majority of them had poor menstrual hygiene practice (63.33, 57.67%) before audio drama in the control and the experimental groups. Whereas in the experimental group all the students showed good menstrual hygiene practice in posttest I (100%) and posttest II (100%).

Comparison	Control Group n = 30			Experimental Group n = 30		
	Mean	SD	Paired t- value	Mean	SD	Paired t- value
Pretest vs Posttest – I	9.83	1.54	0.15	9.73	1.59	21.53***
	9.77	1.52		18.13	1.45	
Pretest vs Posttest – II	9.83	1.54	0.15	9.73	1.59	22.35***
	9.77	1.52		18	1.34	
Posttest – I vs Posttest – II	9.77	1.52	0	18.13	1.45	0.43
	9.77	1.52		18	1.34	

Table 1: Comparison of Mean and Standard Deviation of Knowledge in Pretest and Posttest on Menstrual Hygiene and Management of Minor Ailments of Menstruation in Control and Experimental Group of Visually Challenged Girls

A. $p < 0.001$, NS – Not Significant

The data represented in table 1 denotes the difference in mean and standard deviation of knowledge in control group between pretest vs posttest I (M=9.83, 9.77 SD=1.54,1.52), pretest vs posttest II (M=9.83, 9.77 SD=1.54,1.52) and posttest I vs posttest II (M=9.77, 9.77 SD=1.52,1.52) was not statistically significant, whereas in the experimental group the difference in mean and standard deviation of knowledge between pretest vs posttest I (M=9.73, 18.13 SD=1.59, 1.45) and pretest vs posttest II (M=9.73, 18 SD=1.59, 1.34) was statistically significant ($p < 0.001$).i.e Mean knowledge score is less in posttest than

pretest in experimental group. It can be attributed to the effectiveness of audio drama on menstrual hygiene and management of minor ailments of menstruation. Hence the null hypothesis H_0 1 “There will be no significant difference in level of knowledge before and after audio drama on menstrual hygiene and management of minor ailments of menstruation among visually challenged girls” rejected. When the posttest I and posttest II (M=18.13,18 SD=1.45, 1.34) were compared in the experimental group, there was no statistically significant difference indicating the retention of knowledge even after the interval of one month.

Comparison	Control Group n = 30			Experimental Group n = 30		
	Mean	SD	Paired t- value	Mean	SD	Paired t- value
Pretest vs Posttest – I	5.3	1.0	0.37	5.31	1.03	40.45***
	5.4	1.1		13.4	0.48	
Pretest vs Posttest – II	5.3	1.0	0.37	5.31	1.03	16.63***
	5.4	1.1		13.13	2.36	
Posttest – I vs Posttest – II	5.4	1.1	0	13.4	0.48	0.9 (NS)
	5.4	1.1		13.13	2.36	

Table 2: Comparison of Mean and Standard Deviation of Practice in Pretest and Posttest on Menstrual Hygiene and Management of Minor Ailments of Menstruation in Control and Experimental Group of Visually Challenged Girls

B. p<0.001, NS – Not Significant

The data represented in table 2 denotes the difference in mean and standard deviation of practice in the control group between pretest vs posttest I (M=5.3, 5.4 SD= 1.0, 1.1), pretest vs posttest II (M=5.3, 5.4 SD= 1.0, 1.1) and posttest I vs posttest II (M=5.4, 5.4 SD= 1.1, 1.1) was not statistically significant, whereas in the experimental group the difference in mean and standard deviation between pretest vs posttest I (M=5.31, 13.4 SD= 1.03, 0.48) and pretest vs posttest II (M=5.31, 13.13 SD= 1.03, 2.36) was statistically significant at p<0.001 level. .i.e Mean knowledge score is less in posttest than pretest in experimental group. It can be attributed to the effectiveness of audio drama on menstrual hygiene and management of minor ailments of menstruation. Hence the null hypothesis H₀₂ stated that there will be no significant difference in level of practice before and after audio drama on menstrual hygiene and management of minor ailments of menstruation among visually challenged girls was rejected. When the posttest I and posttest II (M=13.4, 13.13 SD= 0.48, 2.36) were compared in the experimental group, there was no statistically significant difference indicating the retention of practice level even after the interval of one month.

Association between the pretest and posttest scores of knowledge and practice on menstrual hygiene and management of minor ailments of menstruation with selected demographic variables and menstrual variables

There was absence of any significant association between the pretest and posttest scores of knowledge and practice on menstrual hygiene and management of minor ailments of menstruation with selected demographic variables and menstrual variables. Hence the hypotheses H₀₃ and H₀₄ was retained.

Variables	Pretest			Posttest- I			Posttest- II		
	Mean	SD	r	Mean	SD	r	Mean	SD	r
Knowledge	9.73	1.59	0.20	18.13	1.45	0.24	18	1.34	0.25
Practice	5.31	1.48		13.4	0.48		13.13	2.36	

Table 3: Correlation between Knowledge and Practice of Menstrual Hygiene and Management of Minor Ailments of Menstruation in Experimental Group of Visually Challenged Girls

The data presented in table 14 depicts that a low positive correlation (0.24) between knowledge and practice of menstrual hygiene and management of minor ailments of menstruation in pretest, posttest I and posttest II (r= 0.20, r=0.24, r=0.25) respectively in the experimental group of visually challenged girls. Hence the null hypothesis H₀₅ stated that there will be no significant correlation between knowledge and practice on menstrual hygiene and management of minor ailments of menstruation in pretest and posttest of experimental group of visually challenged girls was rejected.

V. DISCUSSION

Study findings revealed that around half of them had moderate knowledge (53.33, 46.67%) and half of them had inadequate knowledge (46.67, 53.33%) before audio drama among control and experimental group of students. It may be due to inadequately educated and less source of information among visually challenged girls.

However, in the experimental group, most of the students had moderate knowledge (70%) and 30 % had adequate knowledge in posttest I and had moderate (76.67%) and adequate knowledge (23.33%) in posttest II.

The study findings revealed that majority of them had poor menstrual hygiene practice (63.33, 57.67%) before audio drama in the control and the experimental groups. Whereas in the experimental group all the students showed good menstrual hygiene practice in posttest I (100%) and posttest II (100%).

The study findings revealed the difference in mean and standard deviation of knowledge in control group

between pretest vs posttest I (M=9.83, 9.77 SD=1.54,1.52), pretest vs posttest II (M=9.83, 9.77 SD=1.54,1.52) and posttest I vs posttest II (M=9.77, 9.77 SD=1.52,1.52) was not statistically significant, whereas in the experimental group the difference in mean and standard deviation of knowledge between pretest vs posttest I (M=9.73, 18.13 SD=1.59, 1.45) and pretest vs posttest II (M=9.73, 18 SD=1.59, 1.34) was statistically significant (p<0.001).i.e Mean knowledge score is less in posttest than pretest in experimental group. It can be attributed to the effectiveness of audio drama on menstrual hygiene and management of minor ailments of menstruation.

Study findings are also conveyed the difference in mean and standard deviation of practice in the control group between pretest vs posttest I (M=5.3, 5.4 SD= 1.0, 1.1), pretest vs posttest II (M=5.3, 5.4 SD= 1.0, 1.1) and posttest I vs posttest II (M=5.4, 5.4 SD= 1.1, 1.1) was not statistically significant, whereas in the experimental group the difference in mean and standard deviation between pretest vs posttest I (M=5.31, 13.4 SD= 1.03, 0.48) and pretest vs posttest II (M=5.31, 13.13 SD= 1.03, 2.36) was statistically significant at p<0.001 level. .i.e Mean knowledge score is less in posttest than pretest in experimental group. It can be

attributed to the effectiveness of audio drama on menstrual hygiene and management of minor ailments of menstruation.

Chi square was used to find out the association between the level of knowledge and practice on menstrual hygiene and management of minor ailments of menstruation with selected demographic variables and menstrual variables. No significant association was found between the level of knowledge and practice with selected demographic variables and menstrual variables.

Insignificant association present in this study may be due to small sample size. The study findings are contradicting to the study conducted by Mishra et al. (2016) based on a sample of 715 adolescent girls from rural (325) and urban (390) areas of West Bengal, in Eastern India. Urban girls have better menstrual hygiene practices ($\beta=0.343$, $p<0.01$) than rural girls. A similar trend is noted for gynaecological problems ($\beta=0.080$, $p<0.01$) among the study participants. The results of path analysis also indicate that girls of higher socioeconomic status have better menstrual hygiene practices which subsequently reduce the prevalence of gynaecological problems among them.

Study findings are also representing that a low positive correlation (0.24) between knowledge and practice ($r=0.20$, $r=0.24$, $r=0.25$). It indicates the significant resemblance between the knowledge and practice on menstrual hygiene and management of minor ailments of menstruation before and after audio drama.

Similar findings are also reported in the study conducted by Punitha (2010) to assess the practice and knowledge of using pad or cloth during menstruation among 100 blind school children. It also revealed high positive correlation between knowledge and practice ($r=0.874$).

However, study findings visibly direct that audio drama is effective on menstrual hygiene and management of minor ailments of menstruation among visually challenged girls. Nurses should play vital role in preventing health hazards of the society. The emerging newer trends in the field of nursing education should focus on the innovations to enhance the teaching methods for visually challenged girls.

VI. CONCLUSION

The analysis findings indicate clearly that, there was a change in the level of knowledge and practice on menstrual hygiene and management of minor ailments of menstruation among visually challenged girls after administering audio drama. It showed that Audio drama is an effective method. Therefore, it is essential to instruct and make available to a realistic learning experiences on menstrual hygiene and management of minor ailments of menstruation among visually challenged girls.

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